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GIVING AWAY THE NATIONAL FORESTS

An Analysis

Of U.S. Forest Service

Timber Sales Below Cost

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Introduction

In 1976, the Natural Resources Defense Council (NRDC) undertook an examination of the Forest Service's financial records related to timber sales from the National Forest System. This examination compared the timber income and expense figures for each of the System's nine regions to identify regional patterns and trends. Figures were examined for the four years 1970-73.

The results of the comparison were surprising. In many regions the expenses of timber sales programs over the four-year period exceeded the income from the sales, often by a considerable amount. From the standpoint of average cost per thousand board feet of timber sold:

- In 1970, average timber sale cost exceeded average timber sale income in three out of nine Forest Service regions.
- In 1971, average timber sale cost exceeded average timber sale income in six out of nine regions.
- In 1972, average timber sale cost exceeded average timber sale income in six out of nine regions.
- In 1973, average timber sale cost exceeded average timber sale income in three out of nine regions.[1/]

A supplemental study, looking at the regional timber income and expense figures for the years 1974-77, showed a continuation of these trends. Indeed, during the eight years covered by these two studies, two of the nine regions of the National Forest System showed expenses exceeding receipts every year and another for seven of the eight years.

1/This regional study appears in full in the May 10, 1976, Congressional Record, where it was printed at the request of Congressman George Brown of California.

These regional examinations indicated that large quantities of federal timber were being sold at prices which did not recover the costs to the federal government of managing that timber, selling it, and replanting the harvest sites. Concerned about this apparent problem, NRDC in 1979 undertook a much more detailed forest-by-forest analysis of timber sale costs and receipts throughout the National Forest System for each of the five years 1974 through 1978. Several additional aspects of the Forest Service's sales program also were examined.

The results of this study strongly support the inference drawn from the earlier regional studies that much federal timber is being sold at prices which do not return management costs. Many individual administrative units of the National Forest System appear consistently to be spending more in support of timber sales programs than they receive in proceeds from those programs. For a substantial number of units, costs are more than twice as great as receipts; in some instances, they are more than four times as great. The results of the study make clear the need for the Forest Service to scrutinize potential timber harvest sites far more carefully in the future to determine whether timber sales from these sites are justified. In addition, the results indicate that the Forest Service's present method of pricing its sales, which does not take account of management costs at all, needs major revision.

This report describes the analyses NRDC performed as part of the study, the methodologies employed, and the results. The report begins by outlining in Part I the nature and organization of the National Forest System. Parts II and III explain the manner in which the Forest Service conducts timber sales, including the pricing method it employs. Parts IV and V describe the accounting system the Service uses to report its expenses and receipts for timber sales and the way the various

accounts were treated in the study. Parts VI and VII report the results of the analyses. Part VIII contains conclusions and recommendations for needed changes in Forest Service practices. Five appendices set forth the results in detail and provide background material.

I. The National Forest System

Of the approximately 750 million acres of forested land in the United States, about 488 million acres are considered "commercial forest land," a classification based on a natural biological capability of growing 20 or more cubic feet of wood fiber per acre per year.[2/] Of that 488 million acres, about 20% is managed by the federal government, 6% by state and local governments, 14% by the timber industry, and 60% by farm and other private, non-industrial owners.

The Forest Service, an agency of the United States Department of Agriculture, manages the 154 national forests located in 44 states. The 188 million acres of national forest land includes about 90 million acres of commercial forest lands, 18% of the U.S. total. The national forests annually produce about 27% of the nation's softwood harvest and 3% of the hardwood harvest. On the average, about 10 billion board feet of timber have been harvested annually from the national forests in recent years.

The National Forest System was established by Congress in 1897. Forests on public lands in the West were set aside to forestall "cut and run" logging that had resulted in denuded mountains, soil erosion, and stream sedimentation in large portions of the nation during the nineteenth century. In the East, lands cut over by private loggers were purchased and

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2/Throughout this report, this is what is meant by "commercial forest land." It should be emphasized that this term does not indicate that land so classified is capable of producing timber profitably. This may or may not be the case, depending upon the particular site.

added to the National Forest System in the first half of the twentieth century.

The national forests are distributed among nine Forest Service regions, which are subdivided into 118 administrative units for management purposes. Usually, each administrative unit consists of one national forest, but some consist of two or more forests combined to form one unit (e.g., the Nantahala, Pisgah, Uwharrie, and Croatan National Forests are managed as "the National Forests in North Carolina"). The table below lists the states in each Forest Service region:

Region 1: Northern: Idaho (panhandle), Montana

Region 2: Rocky Mountain: Colorado, Nebraska, South Dakota, Wyoming

Region 3: Southwestern: Arizona, New Mexico

Region 4: Intermountain: Idaho (southern), Nevada, Utah, Wyoming

Region 5: Pacific Southwest: California

Region 6: Pacific Northwest: Oregon, Washington

Region 7: Dissolved and dispersed among other regions

Region 8: Southern: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Puerto Rico, South Carolina, Tennessee, Texas, Virginia

Region 9: Eastern: Illinois, Indiana, Michigan, Minnesota, Missouri, New Hampshire, Ohio, Pennsylvania, Vermont, West Virginia, Wisconsin

Region 10: Alaska: Alaska

A complete listing of the administrative units within the National Forest System by state and a map of the System are included in Appendix 5.

II. Forest Service Timber Sales

For the years examined in this study, an individual timber sale within a national forest originated in the timber management plan for that forest.[3/] That plan determined the type and intensity of timber management for the commercial forest land in the national forest for a ten-year period. That is, it determined how much timber could be sold within the forest in any given year -- the "allowable cut" -- and what methods were to be used to harvest that timber.

Individual sales within a national forest must be consistent with the overall requirements of that forest's timber management plan. These sales are made only from areas classified as commercial forest land. Working within the bounds of the plan, a forester begins to prepare a specific sale by examining an area available for timber harvest to determine the volume of timber that can be cut from the site. After this determination, the appraisal process described in Section III, below, is used to calculate the value of the timber to be harvested. Finally, the timber from the site is offered for bid, using the appraised value as the base price for the bidding.

Once a purchaser has bought the timber on a sale tract, there is a fixed period of time specified in the sale contract within which the timber must be harvested, usually three or five years. For most sales, the timber is paid for as it is cut. That is, instead of paying the purchase price at the outset, the winning bidder pays for the purchased timber as it is cut.

3/ The Forest Service's planning regulations under the National Forest Management Act, effective October 17, 1979, call for a "forest plan" for each national forest. This plan will govern timber management as well as management for other uses in the forest and will eliminate the need for a separate timber management plan.

Not all Forest Service sales have commercial timber harvest as their main impetus. Salvage sales are conducted to control the spread of disease or insects or to sell dead or dying timber quickly. These sales form a modest portion of the overall timber sale program. For example, of the 9.2 billion board feet sold as sawtimber in 1978, 1.1 billion board feet (12 percent of the total) were sold in salvage sales.

III. The Forest Service's Timber Pricing Mechanism

The Forest Service uses what is known as a residual pricing system in determining the price at which to offer timber for sale from the national forests. In preparing a sale by this residual system, an appraiser estimates what the market value of the timber in a stand will be after it has been milled. This estimate is based on past prices received for similar lumber by mills in the general area of the national forest unit. From this estimate, anticipated logging, transportation, and milling costs are subtracted. These costs include those of logging roads constructed by purchasers, felling the timber, transportation from harvest site to mill, and milling. An amount is also subtracted to guarantee the logger a profit, usually 15 percent of the milled value of the timber. The resulting figure is the "appraised value" of the stand. This value is the base price at which the timber is put up for bid.

In areas where logging costs are high and timber growth is limited, the residual pricing process can produce a value less than zero. In these situations, the Forest Service sets the appraisal value, according to fiber quality, at $3 per thousand board feet for high grade timber, $2 for medium grade timber, or $1 for low grade timber and terms the transaction a "deficit

sale."[4/]

The actual sum owed by the purchaser is determined by one of two methods. In a "fixed price" sale, the purchaser pays the bid price for the timber, with payment occurring at the time when the timber is cut. In a "fluctuating price" sale, the purchaser pays a price that is based on the bid price but adjusted to reflect market prices as they vary during the period allowed for harvest. The price can move up or down but cannot drop below the price of $1, $2, or $3 per thousand board feet. About half of all national forest timber sales are fixed price sales, and half are fluctuating price sales.

The residual pricing system does not in any way take into account the expenses the Forest Service must bear in managing timber, carrying out sales, and replanting harvest sites. These expenses are considerable, as shown in Part V, below. In sum, the Forest Service's pricing system is not designed to ensure that the price received for national forest timber is one which returns the government's expenses.

IV. Forest Service Accounting for Timber Sales

The Forest Service keeps track of its expenditures and receipts related to timber sales through what has been referred to as an "upward accounting" system. This system is designed to inform higher levels of the Forest Service, the Administration, and the Congress on an annual basis how appropriations are being spent and what receipts are being collected at

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4/An alternate sale valuation mechanism called transaction evidence pricing is sometimes used for low-quality stands of timber where purchaser competition is lacking. This method uses historic price trends for unmilled timber to appraise the value of the stand. This transaction evidence price is used as the base price if it exceeds the $1, $2, or $3 minimum provided by the residual system. Transaction evidence pricing is rare for sawtimber: Of 9.2 billion board feet of timber sold in 1978, only 1.1 million board feet - 0.01% of the total - were priced using this method.

lower levels. The individual forests report to their fiscal officers what they have spent and collected; the regions report to national Forest Service fiscal officers; the national level of the Service reports to the Administration and Congress.

The nature of this upward reporting system presents several obstacles to a comparison, forest by forest, of the receipts from timber sales with the expenses connected with those sales. First, the Forest Service's accounting system does not allocate to individual sales the money it spends in support of timber sales. The fiscal records of a given national forest reflect the sums expended in a year on general categories of activities which support timber sales -- e.g., "reforestation" and "timber stand improvement" -- but do not reveal what portion of those expenditures was made in support of a particular sale.

Each administrative unit of the National Forest System covers hundreds of thousands of acres. Within that area may be tracts of highly productive forest lands as well as areas classified as commercial forest land but economically unsuitable for timber production. Some sites may be easily accessible; others may require enormous expenditures for roads and other development to enable logging to occur. Yet the Forest Service's most detailed records, those kept at the unit level, do not reveal the effects of these differences in sale site quality and location on profitability of individual timber sales.

Second, some of the accounts under which expenditures are recorded include activities which benefit not only timber sales but also other uses of the forest. For example, roads built primarily for access to timber harvest sites may in some instances serve recreational purposes as well. The accounting

system used by the Forest Service does not attempt to allocate these expenditures to the various resource uses they serve but merely reports them in one account, such as "Timber Access Roads" in our example.

A final problem in comparing timber receipts with timber expenses lies in the times at which the Forest Service accounts for receipts and expenses. As noted in Part II, above, receipts from timber sales are collected within three to five years after the sale occurs. The portion of these receipts collected in any year is accounted for in that year. Timber management expenses are accounted for in the year in which they are made.

Thus, for any year, the receipts from timber sales and the expenses in support of timber sales are not necessarily related to the same timber sales. For example, the receipts from timber sales recorded in 1975 were from sales made up to five years earlier; that is, all receipts from timber harvested in 1975 were recorded as receipts for 1975, even though the timber may have been purchased as early as 1970. On the other hand, all funds spent in 1975 in support of timber sales were recorded as expenses for that year, even though these expenses related to future as well as current timber sales.

In the part of this study which compares timber sale receipts with expenses, we have taken account of these problems in several ways. First, because the Service does not routinely allocate portions of its expenses to individual sales but merely reports what was spent on various categories of timber sale activities for an entire administrative unit of the National Forest System, we have conducted our comparison of timber sale income and expense at the administrative unit level. Thus, our results show trends for a unit but apply only inferentially to any particular sale within that unit.

The Forest Service's failure to allocate certain expenses among the various resource uses they support was a troublesome problem. To minimize this problem, key people in the Forest Service's national Timber Management, Fiscal and Accounting Management, and Economics Divisions were interviewed to help determine which accounts or portions of accounts could be properly characterized as expenditures in support of timber sales.[5/] On the basis of this information and the Forest Service's official descriptions of its account categories in the Forest Service Manual ("FSM" 6550), NRDC determined which accounts or portions of accounts should be used in comparing yearly income with expenses from timber sales.

The details regarding the accounts examined and the reasons for including or excluding each from our analysis are given in Part V. Two questions proved useful in determining which categories to employ in the analysis. First, did the category represent expenditures directly related to timber harvesting that would not have occurred if the land were managed in its natural state? Second, did the category represent expenditures of the sort that a private forester would incur in managing private lands for timber production? To the extent that these questions were answered positively, a category account was normally included in our analysis.[6/]

5/In reading the discussion in Section V, below, the reader will note that there was disagreement among the Forest Service staff members interviewed concerning the exact purposes which certain accounts served. These differences of opinion appeared to result from the imprecision of the Forest Service's current accounting system, which, by its nature, requires guesswork to analyze expenditures at a level more specific than the broad categories employed.

6/However, due to apportionment problems and in the interest of being conservative, the study omitted entirely several accounts which partially support timber sales and which, to that extent, would result in a positive answer to these questions. See discussion of accounts in Part V, below.

Finally, this study dealt with the nexus problem -- the problem of a year's receipts being attributable to a different set of sales than that year's expenses -- by examining a period of five consecutive years for every administrative unit of the National Forest System. Our assumption was that, if expenses for timber sales in a unit repeatedly exceeded receipts during the five years, it is likely that that unit was indeed selling timber at a price which did not recover costs.[7/] The larger the disparity, the more likely this assumption is to be correct.

This comparison of yearly expenses to receipts as a means of assessing the profitability of Forest Service timber sales is justifiable for another reason. If the units of the National Forest System were privately owned, timber production, at least after an initial investment period, would have to yield a profit to allow the private foresters to stay in business. After eighty years of existence and thirty years of aggressive management of timber in the national forests, the units of the National Forest System should be recovering costs on a regular basis.

V. Timber Expense and Receipt Categories

The various accounting categories the Forest Service employs can be found at FSM 6550. For the purposes of this analysis, we examined those accounts which, from their descriptions in the Forest Service Manual, seemed wholly or in large part devoted to support of timber sales. The following is a brief description of these accounts, reactions from Forest Service personnel interviewed, and our rationale for including or not including the accounts in the analysis.

7/While this study does not take into account income that will accrue after the five-year period examined from some expenses during that period, neither does it take into account the expenses incurred before the period analyzed which produced income during that period. For the purposes of this study, this pre-1974 expense and post-1978 income are assumed to cancel out.

A. Protection and Management Accounts

Forest Service Account 031 -- General Timber Resource Management

This account, according to the Forest Service Manual:

> ". . . includes expenditures in connection with timber sales; free use, administrative use, and timber settlement; supervision of slash disposal; timber cutting in land exchange cases; measures to prevent trespass; trespass and law enforcement in connection therewith; minor investigations and administrative studies dealing with timber resources."

Except for the trespass provisions, the costs allocated to this account relate directly to timber sales. As the trespass expenses are minimal, all the people consulted agreed that this account should be included in full as a cost of timber sales. It was so included.

Forest Service Account 032 -- Timber Resource Management Planning

> "This account includes expenditures for working-circle or forest-wide timber inventories and reinventories. This account also includes preparing and revising management plans."

This account is for long-term timber management planning rather than for planning of individual timber sales. One member of the Forest Service's Timber Management Division felt that the expenditures from this account were not specific enough to be included as costs of timber sales. Two other members of that Division said that this account includes funding for general land management plans, which encompass activities in addition to timber management for eventual sales. A member of the Fiscal and Accounting Division, however, stated that the general management plans were not funded through this account but that this account is for long-range timber sale planning only.

All of this account was included as an expense of timber sales for several reasons. First, the Manual description of this account corroborates the notion of the Fiscal and Accounting Division employee that it is to include only the costs of timber management plans, not general plans. Second,

these timber resource management plans have in the past (including the period examined in this study) been timber sale plans. That is, they laid the groundwork for individual sales by prescribing overall harvest levels, cutting methods, and so on. See Part II, above. Thus, the cost of preparing these plans is an expense directly related to timber sales which would not be incurred if the forest were simply managed to preserve its natural state.

Forest Service Account 033 -- Reforestation

This account, as distinct from Knutson-Vandenberg ("K-V") funds (discussed in Section V.D., below), consists of funds appropriated by Congress for reforestation. The expenditures from this account often go for reforestation after some catastrophe such as fire or disease, rather than for planting after a timber sale, for which K-V funds are designated. However, large sums from this account also are spent to replant the reforestation backlog -- sites where previous efforts at reforestation have failed. The Forest Service personnel consulted recommended using only a portion of this account. However, a Fiscal and Accounting Division staff member stated that over 90% of the replanting is intended to be used eventually for commercial sales purposes because only the most commercially desirable species are planted with these funds.

Thus, this timber is highly likely to be harvested commercially. Further, a private forester would incur these costs in planting a commercial tree crop where catastrophe had destroyed a stand of timber or where previous plantings had failed. Finally, this replanting would not occur under wilderness management, where natural succession would be in order. Therefore, this account was fully included as a cost of timber sales programs.

Forest Service Account 034 - Timber Stand Improvement

This account "includes all expenditures the primary purpose

of which is the betterment and release [from competing vegetation] of the existing timber stand . . ." Activities under this account include pruning, precommercial thinning, and eliminating undesirable species.

These expenses are clearly in support of timber sales. Their only purpose is to improve the commercial quality of the timber in an existing stand. A private tree farmer would bear the costs of stand improvements such as these. These expenses would not be incurred in managing areas to preserve their natural state. The account is included in full.

Forest Service Account 035 - Nurseries

This account is for the expenses of Forest Service tree nurseries. Most seedlings from these nurseries are used to stock harvest sites and other national forest sites.

However, when seedlings from the nurseries are used on national forest lands, according to a member of the Timber Management Division's staff, they are paid for out of reforestation accounts. Thus, using this account might result in counting certain costs twice. As we could not ascertain how to correct for this problem, this account was omitted altogether.

Forest Service Account 036 - Forest Tree Improvement

This account records expenditures for genetic improvement programs for commercial tree species. These genetic programs are part of the process which leads to reforestation of timber sale and other national forest sites. A private forester would pay a share of the cost of such programs in the purchase price of seedlings from a private source.

However, these Forest Service programs also provide improved stock for state and private forests. We could not determine how to allocate a portion of this account to national forest unit sales. This account, too, was excluded.

Forest Service Account 037 - Silvicultural Examinations and Prescriptions

> "Charge this account with all expenditures the primary purpose of which is to examine land areas and prepare silvicultural prescriptions for the timing, methods, and techniques of future silvicultural activities to be undertaken."

This account finances part of long-range timber management activities. A Timber Management Division staff member felt that only half the account should be considered as supporting sales, since the other half goes toward identifying areas needing reforestation and timber stand improvement, activities which he did not consider to be costs of timber sales.

However, as discussed above, the accounts for reforestation and timber stand improvement have been included in full in this analysis. This was because, in brief, both reforestation and timber stand improvement as practiced by the Forest Service are activities intended to enhance timber sales and would not be undertaken but for those eventual sales. Therefore, the half of this account which, by the staff member's estimation, supports reforestation and stand improvement was included as well as the half which more directly supports individual sales.

B. Forest Roads and Trails Accounts

1. Accounts Included in the Study

Two of the accounts from this series were used in the analysis. The Timber Access Roads (Account 131) are major roads into the general area of the sale or sales; the Timber Purchaser Roads (Account 133) are smaller roads into specific harvest sites. Forest Roads and Trails Accounts 131 and 133 record all expenses for timber sale roads which the Forest Service actually pays. Roads which the timber purchaser builds and for which the purchaser receives credit against the sale price of the timber are accounted for separately. See Section V.C., below.

2. Use of the Road Accounts

As the roadbuilding costs are the largest expense items in timber sales, these accounts were carefully scrutinized to determine the extent to which they should be included in the analysis. Some of these roads, once built, can serve purposes other than timber sales, especially recreation, so the question arises whether only part of their cost should be attributed to timber sales.

A member of the Timber Management Division staff questioned the use of the entire roads accounts, since by virtue of the roads' existence they serve other purposes. Another argument for not including all of the road costs as an expense item in the analysis of timber sale costs versus receipts is that some of these roads last for years and are used for several sales. (However, many roads, particularly the timber purchaser roads, are blocked or obliterated after the harvest is completed to prevent erosion or unwanted access.)

There are also good arguments for including the entire road accounts in this analysis. The particular roads financed under accounts 131 and 133 are built to allow timber sales. Indeed, the Forest Service maintains separate accounts for "all-purpose" roads (account 132) and for recreation roads (134). A private forester would have to bear the costs of timber access roads.

It can be argued that to the extent that timber access and purchaser roads in the national forests are used for other multiple use purposes, the road maintenance accounts -- Forest Service Account Series 120 -- reflect the costs attributable to those uses. These maintenance accounts have been omitted entirely from our analysis.

Because there are reasonable arguments both for treating road costs wholly as a timber sale expense and for considering only a portion of such costs as a timber sale expense, NRDC

handled them by two methods in its study. The first method took account of the value of the road for uses other than timber sales by treating only 50% of each account as an expense related to sales. The second method used 100% of the road accounts. Thus, this analysis of timber sales costs versus income for the various administrative units of the National Forest System resulted in two comparisons, one in which the aggregated expense figures include only 50% of the timber road cost accounts and one in which the expense figures include all of the accounts.

C. Purchaser Roads Account

In many cases, the timber purchaser builds some or all of the roads necessary to harvest the sale timber. The Forest Service gives the purchaser a credit for the cost of this construction, which is subtracted from the sale price of the timber.

This credit is shown as income to the Forest Service -- the value of the roads constructed -- in the Timber Purchaser Roads Fund Receipts Account (see Section V.G., below). The credit is transferred to the cost side of the ledgers, where it is recorded as an expense -- a reduction of the purchase price -- to Purchaser Roads Accounts 131 (Timber Access Roads) and 133 (Timber Purchaser Roads), accounts analogous to the like-numbered Forest Roads and Trails Accounts. These Purchaser Roads Accounts were used in the same manner in the analysis as the other road accounts, as explained in Section V.B., above.

D. Knutson-Vandenberg Accounts

The so-called K-V funds are not appropriated by Congress. The Knutson-Vandenberg Act of June 9, 1930, requires a portion of timber sales receipts to be set aside to reforest the cut-over land. This account appears on both sides of the Forest Service ledger, as a portion of receipts set aside from sale income and then as an expense when the money is spent. The

decision whether to include these funds in the analysis involved some of the same judgments as those in the case of the Protection and Management Accounts 033 (Reforestation) and 034 (Timber Stand Improvement), for the K-V accounts are used for these activities. Since K-V funds are used specifically for reforestation and stand improvement on harvested sales sites, the arguments for their inclusion as expenses in support of timber sales are compelling. These K-V funds have thus been included in the analysis in full.

E. Timber Salvage Fund Accounts

In order "to provide for the optimum practical use of the wood material," Section 14(h) of the National Forest Management Act, 16 U.S.C. § 472a(h), authorized the establishment of a special fund to cover the costs of timber salvage sales. Prior to enactment of this 1976 law, costs of salvage sales were simply included in the same accounts as those for sales generally. Since 1977, a portion of the sale income received in a forest has been set aside to be spent specifically to finance salvage sales in that forest.[8/] As with K-V funds, this fund appears on both sides of the ledger, as a receipt (deposits taken in) and as a cost (expenditures made). Expenses paid from this fund are allocated among accounts 031 (General Timber Resource Management), 033 (Reforestation), 034 (Timber Stand Improvement), 131 (Timber Access Roads), and 133 (Timber Purchaser Roads). These funds are included in our analysis. The Salvage Fund road accounts were treated in our analysis the same as other road accounts. See Section V.B., above.

8/This special financing mechanism for salvage sales was created by federal legislators because the costs of making these sales were climbing rapidly while sale income remained at minimal levels, resulting in large losses to the U.S. Treasury. Executive branch budget analysts were critical of these loss sales, and pressure was exerted to reduce them. The Congressional response simply transfers funds directly to the support of these sales from receipts from non-salvage sales, bypassing the Treasury. The apparent savings to the Treasury from this measure are thus illusory.

F. Other Costs Related to Timber Sales

Several other Forest Service expense accounts were not included in this analysis even though they provide important support for timber management activities. The most significant of these are:

040 series - Insect and Disease Control

100 series - Forest Fire Protection

160 series - Construction, Repair and Reconstruction of Roads - Flood Repairs

In addition, no expenses of fish and wildlife management and soils management were included as timber sale costs in spite of the fact that a significant portion of these expenses are incurred to mitigate damages to these resources from logging.

These accounts were excluded from the analysis for several reasons. First, some of the costs represented, such as maintenance of firefighting capability, benefit other forest resources in addition to commercial timber, and it is difficult to apportion these costs among the various resources with currently available Forest Service data. Similarly, current fiscal data do not allow accurate estimates of the portions of such expenses as wildlife and fisheries management which serve to mitigate harm from timber sale activities. Because of these difficulties and because of NRDC's desire to be conservative in calculating expenses, these accounts were excluded.

G. Timber Receipt Categories

The Forest Service accounts for the income from its timber sales program for each national forest (or portion of a national forest) within each state. For this reason, it was easy to determine what Forest Service accounts to include in this analysis's aggregation of timber sale receipts. These were Timber Receipts (the money actually received for the timber), K-V Receipts (see Section V.D., above), Purchaser Roads Credits Receipts (see Section V.C., above), and Timber Salvage Fund Receipts (see Section V.E., above). The totals

of these accounts were used as total receipts for each unit of the National Forest System examined.

H. Summary of Accounts Used

To summarize Part V, the following costs and receipts accounts were used in NRDC's analysis:

Costs

Protection and Management

031 - General Timber Resource Management

032 - Timber Resource Management Planning

033 - Reforestation

034 - Timber Stand Improvement

037 - Silvicultural Examinations and Prescriptions

Forest Roads and Trails

131 - Timber-Access Roads (50% or 100%)

133 - Timber Purchaser Roads (50% or 100%)

K-V Funds

033 - Reforestation

034 - Timber Stand Improvement

Timber Salvage Fund

031 - General Timber Resource Management

033 - Reforestation

034 - Timber Stand Improvement

131 - Timber-Access Roads (50% or 100%)

133 - Timber Purchaser Roads (50% or 100%)

Timber Purchaser Roads Fund

131 - Timber-Access Roads (50% or 100%)

133 - Timber Purchaser Roads (50% or 100%)

Receipts

Timber Receipts

K-V Fund Receipts

Timber Salvage Fund Receipts

Timber Purchaser Roads Fund Receipts

VI. Summary of Results of Receipts versus Costs Analysis

Records of the Fiscal and Accounting Management Division of the Forest Service provided all of the raw data for this analysis. Cost and receipt figures were collected for fiscal years 1974 through 1978, plus the 1976 transition quarter, for all 118 administrative units of the National Forest System.[9/] Administrative units were used because, although receipts are kept by individual national forest, costs are kept only by administrative unit.

The costs and receipts accounts were totalled for each unit of the National Forest System to give costs and receipts figures for each year examined, plus costs and receipts totals for the five and one-quarter years of the study. Costs and receipts for each of the nine Forest Service regions were also calculated for each year and for the entire period. As previously noted,costs were calculated by two methods: using 50% of the road accounts and 100% of the road accounts. The total receipts were divided by total costs to produce a ratio for each administrative unit and for each region for each year and for the entire five and one-quarter years. A ratio equal to or greater than one indicates that receipts equalled or exceeded costs; a ratio less than one indicates that costs exceeded receipts. In units and regions where sale costs consistently exceeded sale income, it is highly probable that sales are being made below costs. Where the receipt-to-cost ratios are very low, there are likely to be a very high proportion

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9/The 1976 transition quarter was necessitated by the change that year to a federal fiscal year commencing October 1 instead of July 1. The transition quarter is thus the period of July through September, 1976.

of below-cost sales.[10/]

The following summarizes some of the major findings of the study (the full results and a summary of the data used are provided in Appendix 1):

- Using 50% of road costs, three out of nine Forest Service regions did not recover total costs over the five years; using 100% of road costs, five regions did not recover total costs.
- Using 50% of road costs, 66 of the 118 administrative units did not recover total costs over the five years; 44 units never had a year when receipts equalled or exceeded costs. Using 100% of road costs, 73 units failed to recover total costs for the entire period, and 49 did not recover costs in any year.
- The more conservative method of analysis (using only 50% of road costs) shows that in 39 administrative units, the total costs for the five-year period were at least twice as large as the total receipts. In 17 units, total costs were at least four times as great as total receipts.
- Over the five years, costs exceeded receipts by a total of $158 million in the units that did not recover costs, according to the more conservative method of analysis. Using the alternative method of analysis (100% of road costs), costs exceeded receipts

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10/Randal O'Toole of Cascade Holistic Economic Consultants has done an economic analysis of expected timber values versus management costs for the national forests in Oregon. His method of analysis leads to the conclusion that timber management is a losing proposition in a number of these forests. While NRDC's study does not result in the same conclusions for Oregon national forests, this is a result of the more conservative, accounting approach taken by NRDC. Thus, NRDC's study does not refute or contradict O'Toole's economic analysis. The interested reader is referred to: Randal O'Toole, A New Reality: Timber Land Suitability in Oregon National Forests, Forestry Research Paper Number 4, (Eugene, Oregon: Cascade Holistic Economic Consultants, 1979).

by $278 million in those units. The three Forest Service regions that lost money for the five-year period as a whole under the more conservative method were the Rocky Mountain, Eastern, and Alaska regions. The Rocky Mountain and Eastern regions, Regions 2 and 9, respectively, never had a year in which they recovered costs by either method of analysis.

Table 1 shows the receipts-to-costs ratio for each region for each year under both methods of analysis (ratios less than one are underlined):

Table 1. Regional Receipts:Costs Ratios

	Forest Service Region (see page 4)									
	1	2	3	4	5	6	7	8	9	10
1974:										
Method 1 (50% road costs)	1.60	0.86	1.80	1.73	3.69	4.35		1.57	0.43	1.13
Method 2 (100% road costs)	1.22	0.70	1.50	1.40	2.60	3.10		1.38	0.39	0.69
1975:										
Method 1	0.94	0.34	0.82	0.80	2.21	3.14		1.08	0.40	1.33
Method 2	0.72	0.27	0.69	0.67	1.57	2.17		0.96	0.36	0.82
1976:										
Method 1	0.98	0.30	1.31	0.80	2.45	3.31		1.38	0.40	0.91
Method 2	0.72	0.25	1.07	0.66	1.65	2.34		1.19	0.36	0.60
T.Q.:										
Method 1	1.30	0.55	1.48	2.38	4.18	4.77		1.52	0.33	0.19
Method 2	1.01	0.44	1.14	1.93	2.79	3.37		1.33	0.28	0.15
1977:										
Method 1	1.55	0.51	1.54	1.25	3.51	4.06		1.39	0.50	0.36
Method 2	1.08	0.39	1.26	0.92	2.45	2.77		1.10	0.43	0.21
1978:										
Method 1	1.11	0.33	1.39	1.03	2.84	4.06		1.40	0.43	0.87
Method 2	0.77	0.25	1.08	0.77	1.98	2.89		1.12	0.37	0.62
1974-78:										
Method 1	1.24	0.45	1.37	1.16	3.00	3.84		1.37	0.43	0.77
Method 2	0.90	0.35	1.11	0.91	2.08	2.69		1.15	0.38	0.48

The results are revealing when the records for administrative units are examined according to the region in which those units are situated. Forests in Regions 2 and 9 -- the Eastern and Rocky Mountain Regions -- had very poor records: Only one unit in those regions -- Allegheny National Forest in Region 9 -- recovered costs for the five-year period under either method of computing costs. Indeed, the Allegheny is the only unit in Region 9 that ever recovered costs in any year by either method of analysis. Region 10 -- Alaska -- also had a poor record for the five-year period.

In every year except 1974, timber sale expenses exceeded receipts in more than half of the administrative units of the National Forest System under both methods of analysis, and the same is true for the five and one-quarter year period as a whole. Table 2 shows the percentage of units each year which did not recover costs; Table 3 shows what percentage of units in each region lost money over the five and one-quarter years.

Table 2. Percentage of Units Not Recovering Costs, By Year (Out of 118 Total Forest Units)

	1974	1975	1976	T.Q.	1977	1978	Overal
Method 1 (50% road costs)	42%	58%	54%	51%	55%	56%	56%
Method 2 (100% road costs)	46%	68%	60%	56%	60%	62%	62%

Table 3. Percentage of Units Not Recovering Overall Costs, By Region

	Region									
	1	2	3	4	5	6	8	9	10	Total
Method 1	54%	100%	55%	81%	29%	0%	60%	93%	100%	56%
Method 2	77%	100%	73%	88%	29%	0%	60%	100%	100%	62%
# Units in Region	13	11	11	16	17	19	15	14	2	118

As Table 3 shows, in 7 out of 9 regions, more than half of the units did not recover costs under either method during the time period examined. In certain regions, the total receipts

exceeded costs only because of a few very profitable forests. Region 4 -- the Intermountain Region -- for instance, would not have recovered costs if either the Boise or Payette National Forest were removed from the analysis.

Regions 5 and 6 -- California, Oregon, and Washington -- account for 97% of the excess in receipts over costs for the whole National Forest System by the method using 50% of road costs and all of the excess using 100% of road costs. If these regions were removed from the analysis, the National Forest System as a whole would still show a profit on sales under the 50% method, but a very small one: $56.2 million instead of $2,043 million. Under the 100% method, the Forest Service would lose $18.3 million instead of making $1,469 million. The system-wide ratio of receipts to costs would drop from 2.29 to 1.07 by the analysis using 50% of road costs; by the analysis using 100% of these costs, the ratio would drop from 1.68 to 0.83.[11/]

The Forest Service netted $2,043 million over the five-year period by the method of analysis using 50% of road costs. However, because the Service managed for and conducted timber sales on the 66 administrative units that lost money, it lost a total of $158 million on these units. In other words, had these units been ignored as potential harvest sites, net Forest Service receipts for the five years would have been increased by $158 million. The results are more dramatic by the method using 100% of road costs: Total net income for the five years,

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11/Northern California, Oregon, and Washington currently contain stands of huge, very profitable old growth timber. However, as the remainder of the old growth stands available for harvest are cut over the next few decades, the harvest from the national forests of the Northwest will increasingly consist of smaller, less profitable trees. Further, many management costs will rise for new stands planted after the harvest of old growth since the old growth occurred naturally and did not require major investment to aid growth. In sum, the high returns to the Forest Service from the Pacific Northwest are temporary and shrinking.

$1,469 million, would have increased by $278 million, or almost 20%, had timber not been sold in these units. Table 4 shows the total of the unit losses by region over the five-year period.

Table 4. Total of Unit Losses by Region for Five-Year Total, Millions of Dollars

Region	50% Roads Method	100% Roads Method
1	$ 15.6	$ 31.8
2	29.1	47.4
3	6.9	11.8
4	18.2	30.7
5	2.0	2.3
6	0.0	0.0
8	34.4	46.5
9	44.6	54.6
10	7.2	53.3
Total	$157.9	$278.4

VII. Other Analyses of Forest Service Timber Sales

In addition to the income versus expense analysis, NRDC performed three other analyses of Forest Service data related to timber sales.

A. Categorization of Sales

To determine the prices at which national forest timber is actually sold, this study included an examination of the records of the Timber Management Division of the Forest Service for calendar year 1978. These records include information shown on where a sale was made, who purchased the timber, the appraised price of each species of tree in the sale, the selling price of each species, and other details of the sale. NRDC examined data from more than 3,300 sales in 1978 to determine the volumes of timber sold within various price ranges (for instance, $0-$10 per thousand board feet (mbf), $10-$20 per mbf). Sales measured by different units (hundred cubic feet instead of thousand board feet, for instance) were categorized separately, and salvage sales were distinguished from non-salvage sales.

The results of this analysis contradict the common conception that national forest timber prices are, in most instances, very high. Considering only non-salvage sales sold by thousand board feet (salvage sales tend to receive lower prices), more timber was sold in 1978 at prices below $80/mbf than was sold at prices exceeding $200/mbf. In fact, twenty percent of the total volume of sawtimber sold in non-salvage sales in 1978 sold for under $40/mbf. The full details of this analysis and results are in Appendix 2.

B. Comparison of Average Cost of Timber Management to Prices Received for Timber

Drawing upon the analyses of costs versus receipts and of timber sale prices, NRDC compared the average regional cost per thousand board feet of timber sold in 1978 to the prices at which timber sold in the region in 1978 to get a rough estimate of the amount of timber that was sold below cost in each region that year. The comparison was made twice, using average cost figures incorporating 100% of the road accounts and using average cost figures incorporating 50% of those accounts. These comparisons revealed four regions in which more than 40% of the timber was sold below cost, and two other regions in which more than 10% of the timber was sold below cost. The details of this comparison are in Appendix 3.

C. Number and Acreage of Roadless Areas in Units Where Costs Exceeded Receipts

In January 1979, the Forest Service completed its second Roadless Area Review and Evaluation (RARE II), a process aimed at determining, for each remaining roadless area in the National Forest System, whether it should be preserved as wilderness or opened to development, including timber harvest. The RARE II study involved nearly three thousand roadless areas containing some 62 million acres, 26.8 million acres of which are commercial forest land. Approximately 60% of these areas (over 36 million acres) were recommended for non-wilderness

uses, less than a quarter - and only 6.0 million acres of the commercial forest acreage - were recommended for wilderness designation, and the remainder were left for further study.

The debate has begun in Congress over which of these areas should be designated as wilderness, a decision left exclusively to Congress under the Wilderness Act. The timber industry is lobbying for Congress to designate no more than the acreage the Forest Service recommended for wilderness and to preclude by legislation any further wilderness consideration of the areas the Forest Service recommended for non-wilderness. Their position is based on the assertion that the non-wilderness roadless areas contain a valuable timber resource essential to supplying the nation's timber needs.

To test the strength of this assertion, NRDC's study identified the RARE II areas in each of the sixty-six units where costs exceeded receipts over the five-year period by the more conservative method of analysis, using only 50% of road costs. We reasoned that these roadless areas have remained so mainly because they are the most remote, least accessible, or poorest quality timber lands in the National Forest System. If a national forest has a record of sales below cost in more accessible, previously developed areas, it is likely that sales from roadless areas, with attendant higher costs because of their remoteness and undeveloped state, also would require expenditures in excess of returns.

For each unprofitable administrative unit, Appendix 4 shows the number of roadless areas in that unit and the total acreage of commercial forest land in those areas. It also identifies the number of roadless areas designated non-wilderness by the Forest Service in each unprofitable unit and their commercial forest acreage.

Appendix 4 reveals that a large proportion of the RARE II roadless areas lie within administrative units losing money on timber sales. 2,108 roadless areas, encompassing 17.8 million acres of commercial forest land, were found to be located in the areas with a history of sales below cost. 66% of the commercial forest land in all RARE II areas lies within these units. 1,391 of the roadless areas within these units, containing 11.5 million acres of commercial forest land (43% of the total in the RARE II lands), were recommended by the Forest Service for non-wilderness uses, including timber sales. The details of this analysis are in Appendix 4.

VIII. Conclusions and Recommendations

The NRDC study demonstrates the need for several important reforms in the way in which the Forest Service conducts timber sales from the national forests. Despite the imprecision of the current Forest Service accounting system, these analyses offer strong evidence that substantial amounts of federal timber are being sold at prices which do not recover the expenditures which the Forest Service makes to enable the sales to occur.

This has a number of implications. Underpricing timber encourages waste and inefficiency, since it is often cheaper to buy more timber than to mill it more efficiently. Because national forest timber is sold below cost, it puts private timber marketers at a competitive disadvantage: these private growers must recover costs to continue producing timber. Taxpayers' money is being wasted on unproductive sites, instead of being spent where it would provide more respectable returns.[13/]

13/See Thomas J. Barlow, "The Giveaway in the National Forests," The Living Wilderness, Vol. XLIII (December 1979), pp. 29-32.

NRDC recommends four basic reforms in current Forest Service timber sales practices:

1. The Forest Service should take a hard economic look at potential timber harvest sites and should not sell timber from sites where anticipated costs exceed anticipated receipts.

The Forest Service should compare all expenses needed to make a harvest possible with the total revenues reasonably anticipated. Both previously developed and undeveloped potential harvest sites should be subjected to this analysis. If anticipated costs outweigh anticipated revenues, the site should be considered unsuitable for timber production and removed from the sales program, unless the sale can be justified to achieve other multiple-use objectives.

Section 6(k) of the National Forest Management Act, 16 U.S.C. § 1604(k), requires this kind of economic test of potential timber harvest sites.[14/] The Forest Service's regulations under § 6, effective October 17, 1979, contain, at 36 C.F.R. 219.12(b)(2), the outline for a test to determine the economic suitability of national forest sites for timber production. Unfortunately, as of this writing, the detailed guidelines for carrying out this test have not been promulgated. These guidelines should be issued quickly and the economic test applied strictly to eliminate from timber sales programs those areas which the test shows to be unsuitable.

2. Beginning immediately, the Forest Service should refuse to sell timber from any roadless area before an analysis of anticipated costs versus anticipated income has been completed.

The remaining roadless areas in the National Forest System eligible for wilderness preservation under the Wilderness Act are a precious and dwindling national resource. Most remain roadless today because of remoteness, difficult terrain, or

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14/See Thomas B. Stoel, Jr., "The National Forest Management Act," Environmental Law, Vol. VIII (Winter 1978), pp. 563-565.

relatively low timber resource values. Roadbuilding and other development required to open these areas to timber harvest would constitute a major expense. Because of the value of these areas as wilderness and because of the likelihood of great expense to open them to logging, the economic analysis suggested in Recommendation 1 should be performed before permitting any sales from these areas. If the analysis shows that selling timber from a roadless area would be unprofitable, the area's wilderness values should not be destroyed in order to conduct timber sales at a loss.

3. The Forest Service's residual pricing system should be replaced with one that takes costs into account in setting the price at which timber is sold.

The Forest Service should abandon the residual pricing system and replace it with one in which the base price is set to recover all the costs that the Service has incurred and will incur in managing and selling the stand of timber. If the Service rigorously applies the economic test suggested in Recommendation 1 to determine the suitability of sites for timber production, this reform of the pricing system should be easy. If the sites from which sales are made have been selected because economic analysis indicates that receipts will exceed costs, then, barring unforeseen problems, it will be appropriate to reject purchase bids which fail to recover costs. The economic test will have eliminated those sites which would cost an excessive amount to manage.

4. The Forest Service's accounting system should be expanded from its present "upward accounting" form into a system that allows detailed examination of costs and receipts on a site-by-site basis.

This reform would permit Forest Service personnel to review their timber management decisions and determine, on the basis of experience, where it makes sense to continue management for timber sales (and at what level of intensity) and where it does not. An improved accounting system would alleviate many of the

difficulties NRDC faced in its analysis of income versus expense by allocating costs among the various resource uses served (e.g., road costs would be allocated among timber sales, recreational uses, etc.), and allocating timber sale costs to individual sites. The information which would be provided by such an accounting system is essential to the sound conduct of timber sales from the national forests. The Forest Service's new computerized accounting system -- the Program Accounting and Management Attainment Reporting System (PAMARS) -- has the capacity for this type of accounting.

These four reforms would greatly reduce economically unsound timber production in the National Forest System. It must be emphasized, however, that Forest Service decisions to sell timber from specific sites should not be based solely on economic analyses of the timber resource. As suggested in Recommendation 1, no timber should be sold from any site where anticipated costs exceed anticipated receipts. However, the fact that economic analysis shows that timber can be produced profitably on a given site does not mean that the site necessarily should be devoted to timber production. The Forest Service's obligation to manage the national forests for multiple uses -- including water, wildlife, recreation, and wilderness, in addition to timber -- requires it to weigh timber production against these other uses before deciding how to manage specific sites. Thus, the economic reforms suggested here should be seen as one very important step in the larger process of wise management of the National Forest System for all its uses.

APPENDIX 1: National Forests Costs and Receipts Data

This appendix summarizes the raw data used in our comparison of Forest Service income and expense related to timber sales.

The first set of charts, Costs and Receipts Accounts, By Region, gives for each region and for each year the various accounts used in the analysis. These charts provide an example of the data with which the analysis was done.

The costs account numbers on the regional total charts represent:

031--General Timber Resource Management
032--Timber Resource Management Planning
033--Reforestation
034--Timber Stand Improvement
037--Silvicultural Examinations and Prescriptions
131--Timber-Access Roads
133--Timber Purchaser Roads

These are the accounts, as explained in the text in Part V, that were added to give the cost totals for each unit. The data for both costs and receipts came from the Fiscal and Accounting Management Division of the Forest Service.

The second set of charts, Costs and Receipts Comparison, compares total costs and receipts by administrative unit of the National Forest System. The data are given for five fiscal years (1974 through 1978) plus the transition quarter in 1976. Additionally, the costs and receipts were totalled for the 5 1/4 years to form a series of Totals charts for the units.[15/] These are at the end of the annual charts and demonstrate in which administrative units costs exceeded receipts (and vice versa) for the entire period.

15/The cost totals for the individual administrative units may not add up to the regional totals. While the regional cost totals result from adding the same account categories as were used to derive the administrative unit totals, the Forest Service regional fiscal personnel include various regional administrative costs in these expense categories which are not allocated among the individual units and, thus, not reflected in the unit's records. The resulting differences between regional cost totals and the sum of unit cost totals for the region are small.

In Forest, the first column of the second set of charts, administrative units are used as the base level because they are the least common denominator for costs and receipts: while receipts are recorded by state and broken down to the national forests, costs are recorded by administrative unit. All the units in a region are listed by name in the first column. (Between 1974 and 1975, Colville National Forest was switched from Region 1 to Region 6; hence its listing in both regions.)

Timber Volume, Thousand Board Feet, the second column, gives the amount of timber cut in each unit in the given fiscal year. These data came from records kept in the Timber Management Division, U.S. Forest Service.

Total Income is given in thousands of dollars. This amount, as discussed in the text, is the total of timber sales receipts, K-V receipts, purchaser roads credit receipts, and timber salvage fund receipts. The text gives a detailed explanation of what these individual receipts accounts represent and why they are used.

The Timber Management Costs columns of the Costs and Receipts Comparison charts display total costs, one column giving total costs when only 50% of the 131 and 133 road accounts are used, the other giving total costs when 100% of 131 and 133 are included. Figures again are given in thousands of dollars.

The Receipts/Costs Ratio column after each of the Timber Management Costs columns gives the result of dividing the Total Receipts figure by the Timber Management Costs figure in the column preceding the ratio. A ratio of one or above indicates receipts equal to or greater than costs; a ratio below one indicates costs exceed receipts. Ratios below one are underlined in the charts.

Cost per Thousand Board Feet, 100% Roads, gives the average cost per thousand board feet using 100% of the road costs. It

is derived by dividing Timber Management Costs, 100% Roads, by the Timber Volume figure. It is given in dollars per thousand board feet.

Cost per Thousand Board Feet, 50% Roads, gives the average cost per thousand board feet using 50% of the roads costs. Like the previous column, it was derived by dividing Timber Management Costs, 50% Roads, by Timber Volume and is given in dollars per thousand board feet.

Average Income per Thousand Board Feet is total income per thousand board feet, derived by dividing Total Income by Timber Volume. One asterisk appears beside the Average Income figure if the Average Cost by the 100% Roads method is larger than the income; two asterisks appear if costs are greater than income for both the 50% and 100% Roads methods.

COSTS AND RECEIPTS ACCOUNTS, BY REGION, THOUSANDS OF DOLLARS

Fiscal Year 1974

COSTS:

REGION	PROTECTION & MANAGEMENT					FOREST ROADS & TRAILS		(K-V) REFORESTATION & STAND IMPROVEMENT		TIMBER SALVAGE SALE						TIMBER PURCHASER ROADS	
	031	032	033	034	037	131	133	033	034	031	032	033	034	131	133	131	133
1	9,436.8	810.9	2,559.2	2,569.9	420.3	2,776.9	7,742.8	3,403.6	1,602.8							8,731.7	
2	3,146.8	477.0	841.9	271.7	126.6	1,045.4	2,662.7	1,187.1	923.9							502.7	
3	3,631.4	352.8	1,020.7	1,850.7	13.5	992.7	2,101.0	651.0	1,747.2							1,143.8	
4	3,804.3	501.2	1,153.1	210.5	114.5	1,404.7	1,935.4	1,376.7	384.4							1,260.3	
5	12,054.0	675.8	1,873.1	702.9	270.8	4,518.1	11,184.5	2,656.5	2,026.7							13,890.9	
6	20,694.9	957.9	2,517.7	2,847.7	395.9	4,617.5	14,082.3	8,079.1	2,570.3							32,756.8	
8	9,723.2	538.0	5,447.9	1,843.3	335.1	730.6	2,917.9	6,896.7	940.3							4,347.6	
9	5,614.0	539.3	2,789.5	997.8	1,205.8	1,267.8	1,620.0	1,293.9	754.1							258.6	
10	2,614.9	448.3	37.6	53.9	3.4	2,183.1	1,716.9	49.8	15.2							6,994.2	
TOTAL	70,720.3	5,301.2	18,240.7	10,348.4	2,885.9	19,536.8	45,963.5	25,594.4	10,964.9							69,886.6	

RECEIPTS:

REGION	TIMBER SALE RECEIPTS	K-V FUND RECEIPTS	TIMBER SALVAGE FUND RECEIPTS	TIMBER PURCHASER ROADS RECEIPTS
1	33,068.1	6,981.5		8,731.7
2	4,961.0	2,335.9		502.7
3	15,027.1	2,558.7		1,143.8
4	13,180.0	2,592.5		1,260.2
5	110,377.9	5,124.3		13,890.9
6	228,407.7	16,273.0		32,756.8
8	35,089.7	7,260.7		4,347.6
9	4,224.8	1,821.0		258.6
10	2,654.5	158.8		6,994.2
TOTAL	446,990.8	45,106.4		69,886.5

COSTS AND RECEIPTS ACCOUNTS, BY REGION, THOUSANDS OF DOLLARS

Fiscal Year 1975

COSTS:

REGION	PROTECTION & MANAGEMENT					FOREST ROADS & TRAILS		(K-V) REFORESTATION & STAND IMPROVEMENT		TIMBER SALVAGE SALE						TIMBER PURCHASER ROADS	
	031	032	033	034	037	131	133	033	034	031	032	033	034	131	133	131	133
1	9,346.8	849.5	2,652.5	2,960.8	512.8	2,080.4	9,£95.7	3,408.1	1,843.6							7,117.7	
2	3,193.9	406.8	888.8	799.0	376.4	1,216.6	3,621.6	1,022.1	1,185.3							1,090.7	
3	3,943.4	359.7	1,346.3	1,748.3	197.9	325.0	2,262.8	540.9	1,899.7							2,191.2	
4	4.295.1	580.8	1,910.3	353.4	223.1	1,327.6	2,416.0	1,826.5	491.9							579.8	
5	12,946.6	638.6	3,124.0	2,383.3	428.2	5,631.8	12,915.7	3,022.3	1,915.0							14,540.8	
6	21,774.6	1,185.1	3,740.9	4,548.7	709.8	6,040.7	18,799.6	10,543.8	3,216.5							48,513.7	
8	10,166.1	493.4	6,975.8	2,794.1	582.7	1,035.2	2,535.1	7,584.2	540.6							4,631.0	
9	6,347.8	525.0	2,951.6	1,417.0	1,273.8	1,011.9	2,150.1	1,376.1	473.0							246.8	
10	3,881.6	472.9	49.2	136.2	67.6	2,004.3	2,550.9	58.0	37.1							10,902.5	
TOTAL	75,895.9	5,511.8	23,639.4	17,140.8	4,372.3	20,673.5	57,147.5	29,382.0	11,602.7							89,814.2	

RECEIPTS:

REGION	TIMBER SALE RECEIPTS	K-V FUND RECEIPTS	TIMBER SALVAGE FUND RECEIPTS	TIMBER PURCHASER ROADS RECEIPTS
1	18,284.9	3,921.7		7,117.7
2	1,530.6	1,097.1		1,090.7
3	5,300.8	2,754.1		2,191.2
4	6,523.1	2,331.8		579.8
5	71,257.0	4,806.8		14,540.8
6	196,053.6	14,290.9		48,513.7
8	23,728.1	7,522.6		4,631.0
9	4,224.8	1,947.8		246.8
10	5,171.6	403.0		10,902.5
TOTAL	332,074.5	39,075.8		89,814.2

COSTS AND RECEIPTS ACCOUNTS, BY REGION, THOUSANDS OF DOLLARS

Transition Quarter, 1976

COSTS:

REGION	PROTECTION & MANAGEMENT					FOREST ROADS & TRAILS		(K-V) REFORESTATION & STAND IMPROVEMENT		TIMBER SALVAGE SALE						TIMBER PURCHASER ROADS	
	031	032	033	034	037	131	133	033	034	031	032	033	034	131	133	131	133
1	4,750.4	488.6	1,201.3	1,277.9	896.7	741.7	3,780.4	728.4	565.9							3,229.3	
2	1,247.7	80.5	275.3	174.3	451.0	248.6	1,063.5	247.9	262.1							360.4	
3	1,275.7	64.6	333.1	255.4	179.7	188.8	1,021.7	26.4	367.4							855.8	
4	1,427.8	185.4	376.2	264.4	189.7	668.3	1,000.4	362.7	197.1							187.2	
5	5,020.9	185.7	1,114.8	534.0	508.0	1,397.7	4,728.5	541.8	925.1							11,332.8	
6	7,470.9	518.7	999.6	1,398.8	436.7	709.8	5,699.0	2,254.2	774.2							13,393.1	
8	4,489.3	183.1	2,002.9	715.7	227.7	416.2	1,130.3	1,429.4	97.6							1,468.0	
9	1,860.4	221.1	520.8	371.9	453.0	752.2	695.7	132.5	64.9							137.4	
10	2,013.3	256.2	78.2	130.0	89.9	1,024.5	1,378.3	17.7	53.0							0.0	
TOTAL	29,556.4	3,707.4	6,902.2	5,122.4	3,432.4	6,147.8	20,497.8	5,741.0	3,307.3							30,964.0	

RECEIPTS:

REGION	TIMBER SALE RECEIPTS	K-V FUND RECEIPTS	TIMBER SALVAGE FUND RECEIPTS	TIMBER PURCHASER ROADS RECEIPTS
1	12,072.3	2,550.0		3,229.3
2	680.5	920.1		360.4
3	3,119.5	1,251.6		855.8
4	8,127.6	1,060.6		187.2
5	59,668.5	2,324.8		11,332.8
6	92,761.0	7,239.6		13,393.1
8	10,282.0	4,462.8		1,468.0
9	1,099.6	200.4		137.4
10	632.6	102.5		0.0
TOTAL	188,443.6	20,112.4		30,964.0

COSTS AND RECEIPTS ACCOUNTS, BY REGION, THOUSANDS OF DOLLARS

Fiscal Year 1976

COSTS:

REGION	PROTECTION & MANAGEMENT 031	032	033	034	037	FOREST ROADS & TRAILS 131	133	(K-V) REFORESTATION & STAND IMPROVEMENT 033	034	TIMBER SALVAGE SALE 031	032	033	034	131	133	TIMBER PURCHASER ROADS 131	133
1	12,266.3	1,311.2	3,283.1	2,692.1	822.5	4,463.5	10,474.9	3,651.4	1,944.2							14,992.0	
2	3,372.4	474.7	1,589.8	1,027.9	603.7	965.7	3,975.2	1,035.3	1,038.5							455.9	
3	4.158.9	224.9	1,674.8	1,573.1	389.7	265.9	2,957.9	387.4	1,779.3							2,658.0	
4	4,648.0	649.2	2,704.6	828.5	245.2	1,913.1	3,357.7	1,628.0	764.2							748.8	
5	13,467.7	519.8	3,453.2	2,216.3	854.8	3,946.5	14,265.8	3,267.6	2,219.2							29,660.8	
6	25,226.4	1,180.8	4,709.5	5,547.5	962.3	6,215.5	19,007.5	13,687.9	3,701.8							53,572.4	
8	10,863.6	410.4	7,853.3	2,915.1	1,026.8	1,443.9	3,661.9	7,558.2	696.1							6,796.3	
9	6,141.9	624.4	3,328.0	1,720.1	1,711.9	1,035.5	2,105.7	1,212.1	461.4							302.7	
10	5,028.2	537.3	84.5	159.7	94.3	306.8	3,424.9	49.1	292.9							10,389.9	
TOTAL	85,173.4	5,932.7	28,680.8	18,680.3	6,711.2	20,556.4	63,231.5	32,477.0	12,897.6							119,576.8	

RECEIPTS:

REGION	TIMBER SALE RECEIPTS	K-V FUND RECEIPTS	TIMBER SALVAGE FUND RECEIPTS	TIMBER PURCHASER ROADS RECEIPTS
1	19,201.0	6,027.6		14,992.0
2	1,586.4	1,556.3		455.9
3	11,016.5	3,496.1		2,658.0
4	7,869.2	2,903.3		748.8
5	87,393.3	5,178.3		29,660.8
6	239,234.9	19,791.5		53,572.4
8	35,430.0	9,168.4		6,796.3
9	4,312.2	2,108.0		302.7
10	1,161.3	610.8		10,389.9
TOTAL	407,204.8	50,840.3		119,576.8

COSTS AND RECEIPTS ACCOUNTS, BY REGION, THOUSANDS OF DOLLARS

Fiscal Year 1977

COSTS:

REGION	PROTECTION & MANAGEMENT 031	032	033	034	037	FOREST ROADS & TRAILS 131	133	(K-V) REFORESTATION & STAND IMPROVEMENT 033	034	TIMBER SALVAGE SALE 031	032	033	034	131	133	TIMBER PURCHASER ROADS 131	133
1	14,037.3	864.9	1,938.2	2,104.4	1,377.4	7,316.9	11,767.5	4,462.9	2,077.4	38.6							22,037.4
2	3,829.5	306.8	2,218.7	1,784.4	1,238.5	1,282.0	4,149.6	617.8	863.9							3,569.1	265.2
3	3,978.7	275.9	1,767.6	2,428.1	583.6	2,056.7	3,219.8	855.1	2,095.7							1,268.1	470.4
4	5,000.3	473.0	2,096.4	867.7	956.5	5,933.1	3,122.6	1,166.5	767.1							1,602.3	1,935.9
5	14,604.3	503.5	4,153.7	2,163.2	1,953.3	13,522.2	15,147.7	3,398.0	2,530.9	260.7					7.8		17,153.6
6	27,017.9	1,962.0	5,419.3	6,060.1	1,941.3	13,967.2	31,472.1	15,890.6	4,008.8	395.1					89.3		62,564.0
8	10,034.6	534.7	7,319.2	3,580.5	1,057.3	7,702.1	4,295.4	6,792.3	816.5							7,979.4	2,328.3
9	6,278.3	682.6	3,034.7	2,059.4	1,851.1	1,132.2	2,676.9	1,333.0	395.9							2,047.7	
10	5,771.7	487.1	109.0	301.3	303.6	4,370.0	4,631.5	68.1	524.0							2,367.5	29,455.5
TOTAL	90,552.6	6,090.5	28,056.8	21,349.1	11,262.6	57,282.4	80,483.1	34,584.3	14,080.2	694.4					97.1	18,834.1	136,210.3

RECEIPTS:

REGION	TIMBER SALE RECEIPTS	K-V FUND RECEIPTS	TIMBER SALVAGE FUND RECEIPTS	TIMBER PURCHASER ROADS RECEIPTS
1	43,261.1	9,678.2		20,618.8
2	34,095.2	2,771.5		1,745.4
3	16,781.9	5,108.8		1,954.7
4	18,346.3	3,670.9		68.4
5	141,377.4	11,147.2	129.9	31,716.0
6	361,863.4	40,005.0		71,866.4
8	36,036.3	14,623.3		6,774.1
9	4,312.7	4,184.5		768.0
10	538.6	918.2		8,658.5
TOTAL	656,612.9	92,107.6	129.9	144,170.3

COSTS AND RECEIPTS ACCOUNTS, BY REGION, THOUSANDS OF DOLLARS

Fiscal Year 1978

COSTS:

REGION	PROTECTION & MANAGEMENT 031	032	033	034	037	FOREST ROADS & TRAILS 131	133	(K-V) REFORESTATION & STAND IMPROVEMENT 033	034	TIMBER SALVAGE SALE 031	032	033	034	131	133	TIMBER PURCHASER ROADS 131	133
1	14,981.8	890.0	3,983.1	2,575.9	2,464.1	9,311.0	12,135.9	4,275.8	1,963.1	176.0							26,695.0
2	4,890.3	422.8	2,649.6	1,585.8	1,659.6	1,607.3	4,755.9	807.4	1,085.0							2,627.2	3,139.6
3	4,689.6	279.5	1,476.5	1,902.6	998.8	1,969.3	2,757.0	1,117.9	2,776.4	- 6.6						2,218.9	3,540.9
4	5,577.3	639.6	2,433.4	1,071.4	832.9	7,903.6	3,452.8	2,297.7	881.8	34.3		0.1				1,522.9	896.5
5	17,757.9	757.3	4,569.1	2,649.0	2,783.1	8,182.5	15,683.3	4,467.8	2,967.1	2,863.9				177.9	398.8		35,347.3
6	29,529.0	1,658.4	7,893.1	6,424.5	2,485.9	14,063.4	27,855.9	24,292.5	4,882.7	1,068.6		- 0.2	- 0.1	65.6	30.7	1,853.2	62,374.4
8	11,612.6	396.7	8,455.0	4,667.6	1,362.5	5,465.2	5,880.2	6,865.9	613.8	76.3						12,150.9	19.5
9	6,821.1	912.5	3,178.8	1,965.5	1,958.7	1,365.8	3,027.9	1,538.8	476.0							2,014.6	249.0
10	6,432.8	495.3	103.1	32.8	360.6	3,453.9	4,752.7	166.3	713.5								3,477.3
TOTAL	102,292.4	6,452.1	34,741.7	22,875.1	14,906.2	53,322.0	80,301.6	45,830.1	16,359.4	4,212.5		- 0.1	- 0.1	243.5	429.5	22,387.7	135,739.5

RECEIPTS:

REGION	TIMBER SALE RECEIPTS	K-V FUND RECEIPTS	TIMBER SALVAGE FUND RECEIPTS	TIMBER PURCHASER ROADS RECEIPTS
1	31,618.1	10,777.1	381.3	18,771.0
2	2,638.9	2,023.1	16.4	1,616.9
3	16,997.3	6,569.5	6.6	2,098.1
4	15,298.2	5,142.2	80.4	656.1
5	153,443.6	16,278.3	5,796.2	19,745.3
6	431,004.6	37,611.2	2,088.8	62,152.9
8	42,555.6	14,189.2	199.7	7,397.5
9	4,594.8	2,809.5	5.7	1,224.1
10	1,209.1	593.6		10,518.7
TOTAL	699,360.2	95,993.7	8,575.1	124,180.6

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1974

Region 1

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Beaverhead	21,997	535.9	935.9	0.57	661.6	0.81	42.55	30.07	24.36**
Bitterroot	22,852	1,630.8	2,542.1	0.64	1,291.0	1.26	111.24	56.49	71.36*
Panhandle	189,791	11,976.3	7,700.1	1.53	5,642.2	2.08	40.57	29.73	63.10
Clearwater	141,128	6,532.2	5,679.1	1.15	3,935.9	1.66	40.24	27.89	46.29
Colville	63,093	5,324.9	2,982.2	1.79	2,241.6	2.38	47.27	35.53	84.40
Custer	3,463	17.9	95.7	0.19	91.6	0.20	27.63	26.45	5.17**
Deerlodge	20,874	878.8	1,022.7	0.86	752.9	1.17	48.99	36.07	42.10*
Flathead	32,582	7,359.7	4,457.8	1.65	3,198.3	2.30	136.82	98.16	225.88
Gallatin	16,196	248.6	622.1	0.40	529.4	0.47	38.41	32.69	15.35**
Helena	25,824	510.4	763.3	0.67	656.2	0.78	29.56	25.41	19.76**
Kootenai	170,109	6,496.3	4,465.9	1.45	3,581.9	1.81	26.25	21.06	38.19
Lewis & Clark	6,686	190.9	488.9	0.39	417.4	0.46	73.12	62.43	28.55**
Lolo	114,261	6,023.3	3,846.6	1.57	3,145.3	1.91	33.67	27.53	52.72
Nezperce	114,439	2,649.6	2,119.0	1.25	1,715.3	1.54	18.52	14.99	23.15
Regional Total	943,295	48,781.3	40,055.1	1.22	30,429.4	1.60	42.46	32.26	51.71

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1974

Region 2

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Bighorn-Shoshone	14,520	311.5	958.1	0.33	766.2	0.41	65.99	52.77	21.46**
Black Hills	112,011	1,766.7	1,872.1	0.94	1,611.0	1.10	16.71	14.38	15.77*
Grand Mesa-Uncompahgre-Gunnison	15,303	324.4	588.2	0.55	505.6	0.64	38.44	33.05	21.20**
Medicine Bow	32,948	1,162.8	1.357.6	0.86	982.1	1.18	41.20	29.81	35.29*
Nebraska	77	0.1	0.7	0.15	0.7	0.15	8.87	8.87	1.36**
Rio Grande	28,838	1,221.2	993.1	1.23	722.9	1.69	34.44	25.07	42.35
Arapahoe-Roosevelt	20,384	407.7	353.0	1.16	260.1	1.57	17.32	12.76	20.00
Routt	25,650	324.6	1,482.5	0.22	1,046.9	0.31	57.80	40.82	12.66**
Pike-San Isabel	11,383	78.8	171.9	0.46	169.3	0.47	15.10	14.87	6.92**
San Juan	78,311	2,029.1	1,771.5	1.15	1,491.1	1.36	22.62	19.04	25.91
White River	14,226	172.8	500.5	0.35	403.8	0.43	35.18	28.39	12.14**
Regional Total	353,651	7,799.6	11,185.9	0.70	9,080.5	0.86	31.63	25.68	22.05**

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1974

Region 3

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Apache-Sitgreaves	137,459	7,018.2	3.635.9	1.93	2,810.8	2.50	26.45	20.45	51.06
Carson	45,045	1,395.7	1,078.3	1.29	978.7	1.43	23.94	21.73	30.98
Cibola	10,222	320.7	406.0	0.79	374.4	0.86	39.72	36.63	31.37**
Coconino	66,414	3,054.6	1,676.0	1.82	1,388.5	2.20	25.24	20.91	45.99
Coronado	2,583	14.1	51.8	0.27	51.8	0.27	20.06	20.06	5.44**
Gila	28,727	544.1	435.6	1.25	394.9	1.38	15.16	13.75	18.94
Kaibab	70,578	4,426.3	1,466.4	3.02	1,176.4	3.76	20.78	16.67	62.72
Lincoln	10,694	450.0	718.2	0.63	544.2	0.83	67.16	50.89	42.08**
Prescott	2,822	29.9	197.7	0.15	197.7	0.15	70.06	70.06	10.61**
Santa Fe	30,935	1,273.6	1,226.6	1.01	1,103.4	1.15	39.65	35.67	41.17
Tonto	10,100	202.4	216.0	0.94	215.1	0.94	21.38	21.29	20.04**
Regional Total	415,578	18,729.6	12,504.8	1.50	10,386.0	1.80	30.09	24.99	45.07

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1974

Region 4

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Ashley	15,858	160.7	341.6	0.47	293.2	0.55	21.54	18.49	10.13**
Boise	129,588	6,199.2	1,996.9	3.10	1,660.0	3.73	15.41	12.81	47.84
Bridger-Teton	32,614	972.1	927.1	1.05	856.1	1.14	28.43	26.25	29.80
Caribou	10,647	89.5	255.4	0.35	240.7	0.37	23.99	22.61	8.40**
Challis	7,409	123.1	223.9	0.55	196.0	0.63	30.22	26.45	16.62**
Dixie	22,021	384.0	514.6	0.75	441.3	0.87	23.37	20.04	17.44**
Fishlake	392	63.2	129.9	0.49	109.0	0.58	331.39	278.15	161.16**
Humboldt	40	9.5	20.6	0.46	20.6	0.46	514.43	514.43	237.35**
Manti-Lasal	12,814	185.7	179.2	1.04	172.5	1.08	13.98	13.46	14.49
Payette	77,709	4,967.4	2,532.6	1.96	1,761.2	2.82	32.59	22.66	63.92
Salmon	33,805	1,095.3	780.5	1.40	680.7	1.61	23.09	20.14	32.40
Sawtooth	9,004	118.4	630.5	0.19	443.6	0.27	70.03	49.26	13.15**
Targhee	79,175	1,758.8	1,291.7	1.36	1,044.9	1.68	16.31	13.20	22.21
Toiyabe	8,685	342.3	188.9	1.81	179.8	1.90	23.36	22.24	42.34
Uinta	1,408	66.2	94.9	0.70	89.8	0.74	67.37	63.76	47.03**
Wasatch-Cache	12,434	496.9	408.6	1.22	307.6	1.62	32.86	24.74	39.96
Regional Total	453,002	17,032.8	12,145.0	1.40	9,844.8	1.73	26.81	21.73	37.60

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1974

Region 5

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Angeles	309	3.7	59.0	0.06	59.0	0.06	191.06	191.06	12.05**
Cleveland	2,074	7.2	91.3	0.08	91.3	0.08	44.02	44.02	3.47**
Eldorado	146,024	7,748.0	2,645.0	2.93	1,863.1	4.16	18.11	12.76	53.03
Inyo	14,065	827.7	265.5	3.12	260.9	3.17	18.88	18.55	58.85
Klamath	225,974	14,856.3	5,205.7	2.85	3,898.7	3.81	23.04	17.25	65.74
Lassen	207,151	20,068.9	2,895.3	6.93	2,087.4	9.61	13.98	10.08	96.88
Los Padres	698	2.6	53.6	0.05	53.6	0.05	76.85	76.85	3.76**
Mendocino	45,295	4,095.0	2,596.6	1.58	1,694.6	2.42	57.32	37.41	90.41
Modoc	91,208	6,530.5	1,688.2	3.87	1,258.8	5.19	18.51	13.80	71.60
Six Rivers	167,355	12,617.6	4,665.3	2.70	3,149.5	4.01	27.88	18.82	75.39
Plumas	231,265	16,937.2	4,397.8	3.85	3,195.1	5.30	19.02	13.82	73.24
San Bernardino	21,772	880.6	337.9	2.61	314.6	2.80	15.52	14.45	40.45
Sequoia	132,817	7,196.5	2,541.2	2.83	2,050.5	3.51	19.13	15.44	54.18
Shasta-Trinity	269,946	19,270.9	6,632.0	2.91	4,355.7	4.42	24.57	16.14	71.39
Sierra	138,534	5,199.8	3,055.0	1.70	2,087.8	2.49	22.05	15.07	37.53
Stanislaus	86,565	7,106.7	6,240.6	1.14	3,648.0	1.95	72.09	42.14	82.10
Tahoe	131,182	6,048.9	3,340.6	1.81	2,306.9	2.62	25.47	17.59	46.11
Regional Total	1,912,235	129,393.1	49,853.0	2.60	35,056.4	3.69	26.07	18.33	67.67

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1974

Region 6

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Deschutes	200,907	12,809.7	3,046.6	4.20	2,446.2	5.24	15.16	12.18	63.76
Fremont	162,437	8,142.1	3,495.8	2.33	2,388.0	3.41	21.52	14.70	50.12
Gifford Pinchot	447,199	31,598.7	5,396.0	5.86	3,801.3	8.31	12.07	8.50	70.66
Malheur	220,869	8,896.2	3,364.0	2.64	2,520.3	3.53	15.23	11.41	40.28
Mt. Baker-Snoqualmie	350,193	20,085.5	7,555.2	2.66	5,032.2	3.99	21.57	14.37	57.36
Mt. Hood	355,579	23,836.3	4,599.7	5.18	3,564.4	6.69	12.94	10.02	67.04
Ochoco	159,189	10,061.2	3,139.8	3.20	2,135.0	4.71	19.72	13.41	63.20
Okanogan	92,430	3,838.5	1,432.0	2.68	1,159.6	3.31	15.49	12.55	41.53
Olympic	261,597	13,784.5	4,480.9	4.52	3,048.5	3.08	17.13	11.65	52.69
Rogue River	187,625	9,427.0	3,584.5	2.63	2,896.5	3.25	19.10	15.44	50.24
Siskiyou	199,761	13,371.8	3,764.6	3.55	2,906.2	4.60	18.85	14.55	66.94
Siuslaw	365,684	25,510.2	7,572.3	3.37	5,390.4	4.73	20.71	14.74	69.76
Umatilla	160,957	6,953.3	3,149.0	2.21	2,357.6	2.95	19.56	14.65	43.20
Umpqua	380,537	18,571.2	8,463.3	2.16	5,269.9	3.52	22.24	13.85	48.80
Wallowa-Whitman	123,440	6,019.2	3,858.3	1.56	2,768.4	2.17	31.26	22.43	48.76
Wenatchee	87,013	5,170.7	3,301.2	1.57	2,427.8	2.13	37.94	27.90	59.42
Willamette	782,130	50,976.7	12,177.3	4.19	7,792.1	6.54	15.57	9.96	65.18
Winema	137,872	8,384.8	1,982.3	4.23	1,590.5	5.27	14.38	11.54	60.82
Colville Grasslands	See Region 1 7		See Region 1		See Region 1		See Region 1		
Regional Total	4,675,425	277,437.5	89,520.1	3.10	63,791.8	4.35	19.15	13.64	59.34

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1974

Region 8

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
NFS in Alabama	52,131	1,793.1	2,014.3	0.89	1,866.1	0.96	38.64	35.80	34.40**
Daniel Boone	26,834	494.3	1,276.4	0.39	1,153.6	0.43	47.57	42.99	18.42**
Chattahoochee-Oconee	68,463	2,032.1	1,976.0	1.03	1,786.1	1.14	28.86	26.09	29.68
Cherokee	32,859	731.8	1,365.4	0.54	1,160.3	0.63	41.55	35.31	22.27**
NFS in Florida	66,178	3,209.5	1,733.1	1.85	1,642.9	1.95	26.19	24.83	48.50
Kisatchie	134,525	9,911.0	2,800.2	3.54	2,334.2	4.25	20.82	17.35	73.67
NFS in Mississippi	118,388	7,413.2	3,583.1	2.07	3,126.5	2.37	30.27	26.41	62.62
George Washington	29,133	310.9	865.5	0.36	849.8	0.37	29.71	29.17	10.67**
Ouachita	151,275	5,454.2	4,675.6	1.17	3,916.9	1.39	30.91	25.89	36.06
Ozark-St. Francis	35,947	1,690.1	1,980.2	0.85	1,830.1	0.92	55.09	50.91	47.02**
NFS in N. Carolina	55,589	1,651.5	2,364.6	0.70	2,099.0	0.79	42.54	37.76	29.71**
Francis Marion-Sumter	146,265	6,053.8	2,984.2	2.03	2,407.9	2.51	20.40	16.46	41.39
NFS in Texas	83,340	5,590.8	2,434.8	2.30	2,079.1	2.69	29.22	24.95	67.08
Jefferson	20,534	361.4	736.1	0.49	715.9	0.50	35.85	34.86	17.60**
Caribbean		0.4	3.1	0.13	1.6	0.27	---	---	---**
Regional Total	1,021,462	46,698.0	33,720.7	1.38	29,722.6	1.57	33.01	29.10	45.72

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARI

Fiscal Year 1974

Region 9

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Chequamegon	49,900	255.4	1,220.3	0.21	1,066.9	0.24	24.46	21.38	5.12**
Chippewa	47.423	498.5	1,180.6	0.42	1,060.0	0.47	24.89	22.35	10.51**
Huron-Manistee	75,213	247.3	1,252.2	0.20	1,064.7	0.23	16.65	14.16	3.29**
NFS in Missouri	42,972	889.6	1,731.5	0.51	1,694.3	0.53	40.29	39.43	20.70**
Nicolet	48,036	406.7	878.1	0.46	802.8	0.51	18.28	16.71	8.47**
Ottawa	43,272	491.0	1,028.0	0.48	903.7	0.54	23.76	20.88	11.35**
Shawnee	6,628	120.2	358.9	0.33	334.1	0.36	54.15	50.41	18.14**
Superior	73,318	534.9	2,225.8	0.24	2,045.6	0.26	30.36	27.90	7.30**
Hiawatha	25,726	257.0	1,096.6	0.23	983.5	0.26	42.62	38.23	9.99**
Wayne-Hoosier	6,064	155.5	478.8	0.32	466.8	0.33	78.95	76.99	25.65**
Allegheny	48,142	1,540.2	1,219.3	1.26	1,014.1	1.52	25.33	21.07	31.99
Green Mountain	13,679	245.0	665.6	0.37	559.0	0.44	48.66	40.86	17.91**
Monongahela	20,110	221.2	930.1	0.24	837.4	0.26	46.25	41.64	11.00**
White Mountain	22,245	418.6	713.6	0.59	577.0	0.73	32.08	25.94	18.82**
Regional Total	522,728	6,304.4	16,340.8	0.39	14,767.5	0.43	31.26	28.25	12.06**

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1974

Region 10

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Tongass	559,559	9,687.8	12,412.5	0.78	7,154.8	1.35	22.19	12.79	17.31*
Chugach	1,459	119.7	338.4	0.35	290.9	0.41	231.97	199.36	82.01**
Regional Total	651,017	9,807.5	14,117.1	0.69	8,670.1	1.13	21.68	13.32	15.06*
NATIONAL TOTAL	10,858,393	561,983.8	279,442.5	2.01	211,731.1	2.65	25.74	19.50	51.76

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1975

Region I

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Beaverhead	12,382	282.9	922.6	0.31	689.1	0.41	74.52	55.65	22.85**
Bitterroot	24,369	712.0	1,734.5	0.41	1,430.1	0.50	71.18	58.69	29.22**
Panhandle	236,491	7,924.7	9,174.2	0.86	6,556.0	1.21	38.79	27.72	33.51*
Clearwater	154,566	5,081.0	5,721.2	0.89	4,080.7	1.25	37.01	26.40	32.87*
Colville	SEE REGION VI								
Custer	717	5.8	103.9	0.06	101.0	0.06	144.91	140.80	8.07**
Deerlodge	15,565	583.2	1,050.3	0.56	797.2	0.73	67.48	51.22	37.47**
Flathead	114,619	3,888.6	4,041.0	0.96	3,161.8	1.23	35.26	27.59	33.93*
Gallatin	11,594	269.6	977.3	0.28	771.0	0.35	84.30	66.50	23.25**
Helena	10,089	236.9	725.2	0.33	638.6	0.37	71.88	63.30	23.48**
Kootenai	142,260	3,414.8	5,010.3	0.68	3,920.9	0.87	35.22	27.56	24.00**
Lewis & Clark	11,221	161.4	669.1	0.24	524.8	0.31	59.63	46.77	14.39**
Lolo	110,239	4,884.6	4,552.7	1.07	3,658.9	1.34	41.30	33.19	44.31
Nezperce	95,057	1,863.0	2,721.5	0.68	2,091.4	0.89	28.63	22.00	19.60**
REGIONAL TOTAL	939,168	29,324.3	40,667.9	0.72	31,121.0	0.94	43.30	33.14	31.22**

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1975

Region 2

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Bighorn-Shoshone	9,903	32.0	940.8	0.03	799.9	0.04	95.01	80.77	3.23**
Black Hills	76,796	404.2	2,554.2	0.16	2,022.5	0.20	33.26	26.34	5.26**
Grand Mesa-Uncompahgre-Gunnison	12,009	218.8	638.3	0.34	579.6	0.38	53.15	48.26	18.22**
Medicine Bow	27,473	723.2	1,780.5	0.41	1,338.9	0.54	64.81	48.74	26.32**
Nebraska	32	0.4	2.9	0.12	2.9	0.12	92.03	92.03	11.30**
Rio Grande	15,936	549.2	1,104.5	0.50	862.2	0.64	69.31	54.11	34.47**
Arapahoe-Roosevelt	17,348	185.4	348.1	0.53	288.7	0.64	20.06	16.64	10.69**
Routt	19,498	333.4	1,255.4	0.27	949.7	0.35	64.39	48.71	17.10**
Pike-San Isabel	3,732	62.4	240.8	0.26	223.4	0.28	64.51	59.87	16.73**
San Juan	30,830	1,085.5	2,515.1	0.43	1,780.6	0.61	81.58	57.76	35.21**
White River	9,464	123.8	494.1	0.25	380.9	0.33	52.21	40.25	13.08**
REGIONAL TOTAL	223,020	3,718.3	13,801.1	0.27	10,836.7	0.34	61.88	48.59	16.67**

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1975

Region 3

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Apache-Sitgreaves	123,908	3,892.1	3,458.1	1.13	2,747.5	1.42	27.91	22.17	31.41
Carson	28,228	1,132.3	1,158.3	0.98	1,031.1	1.10	41.03	36.53	40.12*
Cibola	7,269	176.3	697.9	0.25	575.5	0.31	96.01	79.17	24.26**
Coconino	70,183	2,151.6	1,659.0	1.30	1,420.3	1.51	23.64	20.24	30.66
Coronado	4,061	15.7	58.7	0.27	58.7	0.27	14.45	14.45	3.88**
Gila	4,672	233.7	892.1	0.26	806.5	0.29	190.94	172.61	50.02**
Kaibab	49,120	1,486.4	2,274.3	0.65	1,695.8	0.88	46.30	34.52	30.26**
Lincoln	8,765	163.0	529.1	0.31	469.0	0.35	60.37	53.51	18.60**
Prescott	5,005	40.7	175.0	0.23	172.7	0.24	34.96	34.50	8.14**
Santa Fe	28,652	796.1	1,719.7	0.46	1,485.3	0.54	60.02	51.84	27.79**
Tonto	13,937	157.8	363.0	0.43	295.7	0.53	26.05	21.22	11.32**
REGIONAL TOTAL	343,801	10,246.0	14,815.1	0.69	12,425.6	0.82	43.09	36.14	29.80**

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1975

Region 4

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Ashley	12,251	165.0	512.6	0.32	326.4	0.51	41.85	26.65	13.47**
Boise	100,625	3,234.0	2,611.9	1.24	2,179.5	1.48	25.96	21.66	32.14
Bridger-Teton	27,478	350.9	992.6	0.35	921.6	0.38	36.12	33.54	12.77**
Caribou	5,187	55.4	491.6	0.06	417.2	0.13	94.78	80.43	10.69**
Challis	4,840	35.3	360.4	0.10	333.0	0.11	74.47	68.80	7.30**
Dixie	18,243	160.1	701.5	0.23	601.8	0.27	38.45	32.99	8.78**
Fishlake	1,277	11.7	130.1	0.09	106.3	0.11	101.90	83.21	9.14**
Humboldt	30	11.1	15.6	0.71	15.6	0.71	519.27	519.27	369.37**
Manti-LaSal	5,743	74.4	273.7	0.27	249.0	0.30	47.65	43.36	12.96**
Payette	54,235	2,944.9	2,488.9	1.18	1,889.2	1.56	45.89	34.83	54.30
Salmon	26,151	454.6	739.7	0.61	664.3	0.68	28.29	25.40	17.38**
Sawtooth	9,366	224.3	642.0	0.35	484.5	0.46	68.54	51.73	23.95**
Targhee	54,366	1,272.7	1,326.2	0.96	1,206.7	1.05	24.39	22.20	23.41*
Toiyabe	4,068	180.0	232.1	0.78	224.9	0.80	57.06	55.29	44.25**
Uinta	1,921	78.8	81.2	0.97	71.9	1.10	37.45	42.26	41.02*
Wasatch-Cache	6,271	181.4	558.7	0.32	477.7	0.38	89.09	76.17	28.92**
REGIONAL TOTAL	332,052	9,434.7	14,004.6	0.67	11,842.9	0.80	42.18	35.67	28.41**

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1975

Region 5

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Angeles	473	7.0	180.2	0.04	180.2	0.04	380.97	380.97	14.89**
Cleveland	986	9.4	137.7	0.07	137.7	0.07	139.69	139.69	9.52**
Eldorado	131,225	7,366.0	2,477.8	2.97	1,776.5	4.15	18.88	13.54	56.13
Inyo	1,358	157.9	279.4	0.57	261.1	0.61	205.74	192.23	116.24**
Klamath	162,251	10,374.0	6,202.3	1.67	4,760.2	2.18	38.23	29.34	63.94
Lassen	139,942	14,488.1	2,914.9	4.97	2,126.2	6.81	20.83	15.19	103.53
Los Padres	1,407	5.4	37.7	0.14	37.7	0.14	26.79	26.79	3.81**
Mendocino	47,517	1,995.9	2,933.0	0.68	1,971.2	1.01	61.73	41.48	42.00*
Modoc	42,712	3,757.7	1,893.3	1.98	1,400.4	2.68	44.33	32.79	87.98
Six Rivers	177,256	8,727.3	8,327.9	1.05	5,244.6	1.66	46.98	29.59	49.24
Plumas	130,449	8,285.1	5,464.9	1.52	3,969.6	2.09	41.89	30.43	63.51
San Bernardino	12,937	178.3	444.0	0.40	418.5	0.43	34.32	32.35	13.78**
Sequoia	93,568	4,454.2	2,637.7	1.69	2,097.8	2.12	28.19	22.42	47.60
Shasta-Trinity	186,652	15,155.7	6,895.6	2.20	4,642.8	3.26	36.94	24.87	81.20
Sierra	108,153	3,357.0	3,851.7	0.87	2,648.7	1.27	35.61	24.49	31.04*
Stanislaus	142,061	5,618.5	4,879.1	1.15	3,180.4	1.77	34.35	22.39	39.55
Tahoe	115,321	6,667.4	4,034.2	1.65	2,905.0	2.30	34.98	25.19	57.82
REGIONAL TOTAL	1,494,266	90,604.7	57,547.3	1.57	41,002.9	2.21	38.51	27.44	60.63

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1975

Region 6

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Deschutes	154,209	7,397.3	3,292.5	2.25	2,604.9	2.84	21.35	16.89	47.97
Fremont	134,188	9,187.8	4,102.2	2.24	2,674.0	3.44	30.57	19.93	68.47
Gifford Pinchot	467,628	31,637.5	6.070.2	5.21	4,349.6	7.27	13.09	9.38	68.24
Malheur	183,568	5,632.4	3,429.4	1.64	2,459.2	2.29	18.68	13.40	30.68
Mt. Baker-Snoqualmie	203,651	19,088.1	6,267.5	3.05	4,521.6	4.22	30.78	22.20	93.73
Mt. Hood	326,207	20,826.0	7,512.6	2.77	5,268.2	3.95	23.03	16.15	63.84
Ochoco	134,937	6,330.2	2,895.6	2.19	2,016.9	3.14	21.46	14.95	46.91
Okanogan	77,091	2,790.2	2,313.4	1.21	1,807.1	1.54	30.01	23.44	36.19
Olympic	269,365	16,794.8	9,261.4	1.81	5,633.5	2.98	34.38	20.91	62.35
Rogue River	111,095	9,796.4	3,980.4	2.46	3,015.4	3.25	35.83	27.14	88.18
Siskiyou	151,975	13,360.7	5,892.9	2.27	4,165.2	3.21	38.78	27.41	87.91
Siuslaw	231,518	21,133.4	9,714.4	2.18	6,716.8	3.15	41.96	29.01	91.28
Umatilla	198,369	5,487.6	4,782.2	1.15	3,145.6	1.74	24.11	15.86	27.66
Umpqua	358,128	22,801.5	7,777.9	2.93	5,091.8	4.48	21.72	14.22	63.67
Wallowa-Whitman	97,718	2,701.0	4,530.9	0.60	3,203.6	0.84	46.37	32.78	27.64**
Wenatchee	173,162	3,711.8	5,114.3	0.73	3,684.2	1.01	29.53	21.28	21.44*
Willamette	542,433	51,137.6	17,601.3	2.91	10,705.6	4.78	32.45	19.74	94.27
Winema	114,689	5,105.5	2,478.8	2.06	2,033.7	2.51	21.61	17.73	44.52
Colville	65,341	3,367.6	4,613.6	0.73	3,185.8	1.06	70.61	48.76	51.54*
Grasslands	23								
REGIONAL TOTAL	3,991,295	258,963.2	119,073.4	2.17	82,396.3	3.14	29.83	20.64	64.88

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1975

Region 8

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
NFS in Alabama	50,902	1,362.3	2,197.7	0.62	2,077.5	0.66	43.17	40.81	26.76**
Daniel Boone	22,802	413.4	1,526.0	0.27	1,467.5	0.28	66.92	64.36	18.13**
Chattahoochee-Oconee	53,126	1,521.3	2,328.1	0.65	2,120.2	0.72	43.82	39.91	28.64**
Cherokee	30,698	983.4	1,723.6	0.57	1,421.2	0.69	56.15	46.30	32.03**
NFS in Florida	54,007	2,676.5	1,741.6	1.54	1,675.7	1.60	32.25	31.03	49.56
Kisatchie	127,107	5,986.0	2,795.7	2.14	2,367.2	2.53	21.99	18.62	47.09
NFS in Mississippi	119,140	6,134.2	3,705.3	1.66	3,343.8	1.83	31.10	28.07	51.49
George Washington	25,258	315.0	977.8	0.32	938.2	0.34	38.71	37.14	12.47**
Ouachita	167,851	5,593.5	5,359.1	1.04	4,471.0	1.25	31.93	26.64	33.32
Ozark-St. Francis	34,515	1,160.6	2,250.5	0.52	2,113.4	0.55	65.20	61.23	33.63**
NFS in N.Carolina	62,052	1,196.9	2,185.4	0.55	2,056.8	0.58	35.22	33.15	19.29**
Francis Marion-Sumter	105,317	5,246.4	2,793.9	1.88	2,299.8	2.28	26.53	21.84	49.81
NFS in Texas	59,420	3,171.5	3,175.5	1.00	2,588.6	1.23	53.44	43.56	53.37
Jefferson	16,010	120.6	898.7	0.13	881.1	0.14	56.14	55.04	7.53**
Caribbean	-	0.4	128.1	0.00	128.1	0.00	-	-	- **
REGIONAL TOTAL	928,202	35,881.7	37,338.3	0.96	33,237.6	1.08	40.23	35.81	38.66**

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1975

Region 9

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Chequamegon	46,532	315.8	1,256.5	0.25	1,132.7	0.28	27.00	24.34	6.79**
Chippewa	36,580	436.3	1,359.9	0.32	1,266.6	0.34	37.18	34.63	11.93**
Huron-Manistee	36,342	234.6	1,072.0	0.22	1,028.4	0.23	29.50	28.30	6.46**
NFS in Missouri	45,934	931.5	1,757.3	0.53	1,696.7	0.55	38.26	36.94	20.28**
Nicolet	55,314	474.5	1,033.8	0.46	944.5	0.50	18.69	17.08	8.58**
Ottawa	37,139	504.7	1,182.1	0.43	1,061.1	0.48	31.83	28.57	13.59**
Shawnee	4,799	101.8	444.1	0.23	427.2	0.24	92.54	89.02	21.22**
Superior	81,377	571.7	2,262.3	0.25	2,082.6	0.27	27.80	25.59	7.02**
Hiawatha	25,890	294.9	1,197.9	0.25	1,060.4	0.28	46.27	40.96	11.39**
Wayne-Hoosier	5,172	136.7	458.8	0.30	433.1	0.32	88.71	83.75	26.42**
Allegheny	35,787	1,573.2	1,547.0	1.02	1,197.2	1.31	43.23	33.45	43.96
Green Mountain	7,067	216.6	586.4	0.37	510.4	0.42	82.98	72.22	30.65**
Monongahela	14,228	182.5	1,017.7	0.18	863.4	0.21	71.53	60.68	12.83**
White Mountain	20,930	420.9	696.7	0.60	604.8	0.70	33.29	28.90	20.11**
REGIONAL TOTAL	453,089	6,413.4	17,773.1	0.36	16,068.7	0.40	39.23	35.46	14.17**

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1975

Region 10

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Tongass	462,352	16,344.8	16,941.1	0.96	9,749.6	1.68	36.64	21.09	35.35*
Chugach	6,541	132.3	872.4	0.15	682.5	0.19	133.37	104.35	20.23**
REGIONAL TOTAL	468,893	16,477.1	20,160.2	0.82	12,431.3	1.33	43.00	26.51	35.14*
NATIONAL TOTAL	9,173,786	461,069.5	335,181.0	1.38	251,363.0	1.83	36.54	27.40	50.26

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1976

Region 1

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Beaverhead	11,291	294.6	1,122.6	0.26	909.2	0.32	99.39	80.53	26.09**
Bitterroot	24,441	898.7	2,182.1	0.41	1,711.1	0.53	89.28	70.01	36.77**
Panhandle	211,569	13,648.1	12,195.5	1.12	8,520.9	1.60	57.64	40.27	64.51
Clearwater	146,504	5,696.0	9,775.3	0.58	6,366.4	0.89	66.72	43.46	38.88**
Colville	See Region 6		See Region 6		See Region 6		See Region 6		
Custer	950	7.9	163.0	0.05	150.2	0.05	171.55	158.06	8.29**
Deerlodge	18,534	479.3	1,396.0	0.34	1,093.9	0.44	75.32	59.02	25.86**
Flathead	109,473	5,608.1	5,391.6	1.04	4,090.7	1.37	49.25	37.37	51.23
Gallatin	5,001	248.3	1,030.6	0.24	838.4	0.30	206.08	167.66	49.65**
Helena	8,303	129.4	984.3	0.13	827.2	0.16	118.55	99.62	15.58**
Kootenai	151,656	4,359.2	6,739.5	0.65	4,970.1	0.88	44.44	32.77	28.74**
Lewis & Clark	7,907	260.6	840.4	0.31	664.6	0.39	106.29	84.05	32.96**
Lolo	106,609	5,086.3	5,860.2	0.87	4,414.1	1.15	54.97	41.40	47.71*
Nezperce	103,296	4,174.3	4,048.7	1.03	2,884.7	1.45	39.20	27.93	40.41
Regional Total	905,534	40,220.6	55,901.1	0.72	40,935.9	0.98	61.73	45.21	44.42**

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1976

Region 2

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Bighorn-Shoshone	13,264	94.3	1,261.8	0.07	1,055.3	0.09	95.13	79.56	7.11**
Black Hills	100,299	692.7	2,007.8	0.35	1,693.0	0.41	20.02	16.88	6.91**
Grand Mesa-Uncompahgre-Gunnison	17,569	171.7	687.4	0.25	572.6	0.30	39.13	32.59	9.77**
Medicine Bow	28,468	836.4	1,871.6	0.45	1,321.8	0.63	65.74	46.43	29.38**
Nebraska		0.0	1.8	0.00	1.8	0.00	---	---	--- **
Rio Grande	21,128	285.7	1,286.7	0.22	1,071.0	0.27	60.90	50.69	13.52**
Arapahoe-Roosevelt	15,625	162.7	594.9	0.27	525.5	0.31	38.07	33.63	10.41**
Routt	23,596	311.7	1,451.7	0.21	1,144.6	0.27	61.52	48.64	13.21**
Pike-San Isabel	3,334	75.2	345.8	0.22	321.3	0.23	103.71	96.38	22.56**
San Juan	49,325	777.8	2,304.6	0.34	1,755.9	0.44	46.72	35.60	15.77**
White River	11,197	190.4	587.6	0.32	488.7	0.39	52.48	43.64	17.01**
Regional Total	283,808***	3,598.5	14,539.0	0.25	11,840.7	0.30	51.23	41.72	12.68**

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

*** 3 mbf were sold from Thunder Basin National Grasslands

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1976

Region 3

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Apache-Sitgreaves	123,271	5,536.8	3,246.3	1.71	2,560.5	2.16	26.34	20.77	44.92
Carson	27,813	1,245.3	1,333.7	0.93	1,109.3	1.12	47.95	39.89	44.77*
Cibola	4,527	169.9	685.7	0.25	546.0	0.31	151.47	120.61	37.53**
Coconino	79,517	3,945.0	2,039.6	1.93	1,749.7	2.25	25.65	22.00	49.61
Coronado	4,043	15.5	57.3	0.27	57.3	0.27	14.17	14.17	3.84**
Gila	15,441	373.7	1,178.1	0.32	1,013.1	0.37	76.30	65.61	24.20**
Kaibab	67,607	3,293.8	2,031.2	1.62	1,565.2	2.10	30.04	23.15	48.72
Lincoln	13,027	407.5	612.1	0.67	543.5	0.75	46.99	41.22	31.28**
Prescott	3,419	18.3	167.2	0.11	160.9	0.11	48.89	47.06	5.36**
Santa Fe	51,549	2,030.6	2,272.2	0.89	1,747.9	1.16	44.08	33.91	39.39*
Tonto	9,543	134.2	411.1	0.33	340.8	0.39	43.08	35.71	14.07**
Regional Total	399,757	17,170.7	16,069.9	1.07	13,129.0	1.31	40.20	32.84	42.9$

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1976

Region 4

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Ashley	9,653	38.8	576.5	0.07	479.1	0.08	59.72	49.63	4.02**
Boise	136,202	3,213.6	3,354.4	0.96	2,717.1	1.18	24.63	19.95	23.59*
Bridger-Teton	18,679	390.6	1,146.0	0.34	1,065.7	0.37	61.35	57.05	20.91**
Caribou	12,257	117.9	571.1	0.21	472.2	0.25	46.59	38.53	9.62**
Challis	4,510	204.5	329.3	0.62	284.5	0.72	73.02	63.09	45.35**
Dixie	15,392	195.1	907.5	0.22	782.3	0.25	58.96	50.83	12.68**
Fishlake	4,427	130.4	173.0	0.75	163.6	0.80	39.08	36.96	29.45**
Humboldt	82	15.5	3.4	4.53	3.4	4.53	41.61	41.61	188.57
Manti-LaSal	2,878	171.1	344.7	0.50	341.0	0.50	119.76	118.49	59.45**
Payette	75,262	4,027.9	2,491.2	1.62	1,821.7	2.21	33.10	24.20	53.52
Salmon	34,835	1,107.2	1,088.6	1.01	968.9	1.14	31.25	27.81	31.78
Sawtooth	11,050	234.5	476.6	0.49	430.9	0.54	43.13	38.99	21.22**
Targhee	50,230	1,361.6	2,842.6	0.48	2,166.5	0.63	56.59	43.13	27.11**
Toiyabe	2,633	32.9	254.5	0.13	236.8	0.14	96.65	89.95	12.49**
Uinta	1,467	57.3	134.0	0.43	115.0	0.50	91.34	78.39	39.06**
Wasatch-Cache	17,013	212.5	762.5	0.28	615.1	0.35	44.82	36.16	12.49**
Regional Total	396,570	11,521.4	17,487.4	0.66	14,477.5	0.80	44.10	36.51	29.05**

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1976

Region 5

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Angeles	951	11.6	124.8	0.09	124.8	0.09	131.23	131.23	12.17**
Cleveland	543	7.5	93.2	0.08	93.2	0.08	171.64	171.64	13.73**
Eldorado	118,125	9,359.5	3,114.5	3.01	2,160.7	4.33	26.37	18.29	79.23
Inyo	5,308	95.6	236.9	0.40	221.4	0.43	44.62	41.70	18.01**
Klamath	241,309	15,809.1	7,147.6	2.21	5,219.1	3.03	29.62	21.63	65.51
Lassen	116,983	11,574.0	2,921.8	3.96	2,211.2	5.23	24.98	18.90	98.94
Los Padres	1,083	5.0	54.0	0.09	48.5	0.10	49.91	44.75	4.63**
Mendocino	72,382	4,686.2	4,450.7	1.05	2,676.5	1.75	61.49	36.98	64.74
Modoc	54,872	6,303.0	2,799.2	2.25	1,867.7	3.37	51.01	34.04	114.87
Six Rivers	147,965	13,592.8	7,846.6	1.73	5,051.5	2.69	53.03	34.14	91.86
Plumas	179,385	10,972.7	9,905.6	1.11	6,313.0	1.74	55.22	35.19	61.17
San Bernardino	19,245	542.9	499.4	1.09	471.7	1.15	25.95	24.51	28.21
Sequoia	94,984	6,207.6	4,013.8	1.55	2,804.4	2.21	42.26	29.52	65.35
Shasta-Trinity	201,931	14,832.5	9,052.7	1.64	6,022.4	2.46	44.83	29.82	73.45
Sierra	174,220	6,917.5	4,111.1	1.68	2,797.1	2.47	23.60	16.05	39.71
Stanislaus	143,254	12,770.2	7,206.1	1.77	4,318.2	2.96	50.30	30.14	89.14
Tahoe	144,797	8,544.8	4,675.0	1.83	3,188.4	2.68	32.29	22.02	59.01
Regional Total	1,717,338	122,232.4	73,871.7	1.65	49,935.1	2.45	43.02	29.08	71.18

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1976

Region 6

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Deschutes	210,520	15,979.3	3,974.9	4.02	3,068.6	5.21	18.88	14.58	75.90
Fremont	130,750	10,965.5	3,227.3	3.40	2,469.7	4.44	24.68	18.89	83.87
Gifford Pinchot	258,133	21,658.4	8,156.3	2.66	6,247.8	3.47	31.60	24.20	83.90
Malheur	199,983	11,176.6	4,858.6	2.30	3,309.5	3.38	24.30	16.55	55.89
Mt. Baker-Snoqualmie	161,468	20,376.2	9,112.6	2.24	6,017.5	3.39	56.44	37.27	126.19
Mt. Hood	307,840	26,198.4	7,029.8	3.73	5,138.1	5.10	22.84	16.69	85.10
Ochoco	137,797	10,339.6	4,123.6	2.51	2,792.7	3.70	29.93	20.27	75.04
Okanogan	84,305	3,677.2	1,693.6	2.17	1,512.4	2.43	20.09	17.94	43.62
Olympic	249,299	15,117.6	8,026.8	1.88	5,210.2	2.90	32.20	20.90	60.64
Rogue River	147,497	12,952.3	5,616.4	2.31	4,034.4	3.21	38.08	27.35	87.81
Siskiyou	175,909	22,333.7	10,422.8	2.14	6,597.8	3.39	59.25	37.51	73.63
Siuslaw	293,717	33,657.5	12,443.6	2.70	8,196.0	4.11	42.37	27.90	114.59
Umatilla	202,111	6,546.7	4,779.4	1.37	3,246.7	2.02	23.65	16.06	32.39
Umpqua	331,663	26,554.8	9,498.0	2.80	6,190.7	4.29	28.64	18.67	80.07
Wallowa-Whitman	159,083	5,661.7	3,941.8	1.44	3,015.5	1.88	24.78	18.96	35.59
Wenatchee	160,655	3,879.5	5,149.6	0.75	3,870.7	1.00	32.05	24.09	24.15*
Willamette	539,163	52,756.6	16,486.3	3.20	11,198.8	4.71	30.58	20.77	97.85
Winema	129,688	9,208.7	3,402.5	2.71	2,574.3	3.58	26.24	19.85	71.01
Colville	70,538	2,888.2	3,525.7	0.82	2,666.9	1.08	49.98	37.81	40.95*
Grasslands	60								
Regional Total***	3,950,180	312,599.0	133,811.6	2.34	94,413.9	3.31	33.87	23.90	79.14

* Receipts below costs by 100% Roads method.

***Includes 60 mbf sold from grasslands

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1976

Region 8

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
NFS in Alabama	50,350	2,764.0	2,466.8	1.12	2,319.2	1.19	48.99	46.06	54.90
Daniel Boone	29,313	488.3	1,759.8	0.28	1,692.3	0.29	60.03	57.73	16.66**
Chattahoochee-Oconee	47,051	2,086.0	2,682.9	0.78	2,320.7	0.90	57.02	49.32	44.33**
Cherokee	32,871	834.5	2,049.5	0.41	1,661.5	0.50	62.35	50.55	25.39**
NFS in Florida	72,722	4,100.4	2,190.8	1.87	1,927.3	2.13	30.13	26.50	56.38
Kisatchie	148,268	7,944.7	3,532.8	2.25	2,914.5	2.73	23.83	19.66	53.58
NFS in Mississippi	144,401	9,105.1	4,574.7	1.99	3,940.9	2.31	31.68	27.29	63.05
George Washington	19,084	160.4	959.0	0.17	888.4	0.18	50.25	46.55	8.40**
Ouachita	206,083	8,688.6	6,427.3	1.35	5,178.3	1.68	31.19	25.13	42.16
Ozark-St. Francis	34,390	1,438.8	2,848.2	0.51	2,504.1	0.57	82.82	72.81	41.84**
NFS in N. Carolina	50,049	910.4	2,557.7	0.36	2,222.1	0.41	51.10	44.40	18.19**
Francis Marion-Sumter	114,295	5,914.4	2,877.8	2.06	2,430.7	2.43	25.18	21.27	51.75
NFS in Texas	97,948	6,858.1	3,577.3	1.92	2,802.8	2.45	36.52	28.62	70.02
Jefferson	13,344	99.9	1,070.1	0.09	972.9	0.10	80.19	72.91	7.49**
Caribbean		1.0	92.6	0.01	92.6	0.01	---	---	--- **
Regional Total	1,060,170	51,394.7	43,225.6	1.19	37,274.5	1.38	40.77	35.16	48.48

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1976

Region 9

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Chequamegon	40,473	365.7	1,353.6	0.27	1,197.1	0.31	33.44	29.58	9.04**
Chippewa	41,576	396.1	1,512.8	0.26	1,390.8	0.28	36.39	33.45	9.53**
Huron-Manistee	50,014	285.2	1,254.8	0.23	1,216.4	0.23	25.09	24.32	5.70**
NFS in Missouri	41,201	896.3	1,855.4	0.48	1,799.1	0.50	45.03	43.67	21.75**
Nicolet	42,460	607.6	1,012.8	0.60	926.6	0.66	23.85	21.82	14.31**
Ottawa	27,014	562.8	1,282.4	0.44	1,152.5	0.49	47.47	42.66	20.83**
Shawnee	3,240	103.2	604.1	0.17	504.9	0.20	186.45	155.83	31.85**
Superior	55,642	398.6	2,699.0	0.15	2,254.1	0.18	48.51	40.51	7.16**
Hiawatha	17,355	285.5	1,252.4	0.23	1,142.8	0.25	72.16	65.85	16.45**
Wayne-Hoosier	8,075	241.8	535.4	0.45	531.4	0.45	66.30	65.81	29.94**
Allegheny	52,981	1,766.5	1,323.9	1.33	1,083.2	1.63	24.99	20.45	33.34
Green Mountain	6,758	99.7	541.7	0.18	476.3	0.21	80.16	70.48	14.75**
Monongahela	8,494	182.0	699.6	0.26	639.8	0.28	82.36	75.32	21.43**
White Mountain	17,955	531.2	775.8	0.68	666.8	0.80	43.21	37.14	29.59**
Regional Total	413,236	6,723.0	18,644.0	0.36	16,922.0	0.40	45.12	40.95	16.27**

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1976

Region 10

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Tongass	444,335	11,390.6	16,251.5	0.70	9,971.1	1.14	36.57	22.44	25.64**
Chugach	4,525	771.4	1,631.7	0.47	1,114.0	0.69	360.60	246.19	170.48**
Regional Total	448,860	12,162.0	20,367.6	0.60	13,306.8	0.91	45.38	29.65	27.10**
NATIONAL TOTAL	9,575,453	577,622.1	393,917.9	1.47	292,235.6	1.98	41.14	30.52	60.32

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Transition Quarter 1976

Region 1

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Beaverhead	4,094	118.6	331.3	0.36	267.2	0.44	80.92	65.27	28.97**
Bitterroot	8,550	376.6	694.4	0.54	576.9	0.65	81.22	67.47	44.05**
Panhandle	83,118	6,064.6	3,792.4	1.60	2,875.4	2.11	45.63	34.59	72.96
Clearwater	106,394	3,464.5	2,601.0	1.33	1,841.1	1.88	24.45	17.30	32.56
Colville	See Region 6		See Region 6		See Region 6		See Region 6		
Custer	298	3.6	98.9	0.04	91.7	0.04	331.88	307.72	12.08**
Deerlodge	5,844	162.2	491.2	0.33	394.8	0.41	84.05	67.56	27.75**
Flathead	45,265	2,032.1	1,844.6	1.10	1,421.7	1.43	40.75	31.41	44.89
Gallatin	3,140	151.4	370.7	0.41	327.0	0.46	118.06	104.14	48.22**
Helena	2,395	12.1	415.8	0.03	362.6	0.03	173.61	151.40	5.05**
Kootenai	64,376	1,964.4	2,342.1	0.84	1,826.3	1.08	36.38	28.37	30.51*
Lewis & Clark	6,475	86.1	285.9	0.30	244.5	0.35	44.15	37.76	13.30**
Lolo	28,845	2,287.5	1,514.9	1.51	1,256.4	1.82	52.52	43.56	79.30
Nezperce	48,241	1,309.8	1,376.7	0.95	1,026.6	1.28	28.54	21.28	27.15*
Regional Total	407,035	16,851.5	17,660.7	1.01	13,784.9	1.30	43.39	33.87	43.86

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Transition Quarter 1976

Region 2

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Bighorn-Shoshone	5,149	14.1	353.1	0.04	285.1	0.05	68.58	55.37	2.74**
Black Hills	29,857	406.2	547.4	0.74	453.6	0.89	18.33	15.19	13.60**
Grand Mesa-Uncompahgre-Gunnison	7,799	80.4	200.6	0.40	167.4	0.48	25.72	21.46	10.31**
Medicine Bow	11,104	157.7	442.4	0.36	369.3	0.43	39.84	33.26	14.20**
Nebraska		0.0	1.1	0.00	1.1	0.00	---	---	--- **
Rio Grande	8,538	494.8	683.6	0.72	421.0	1.18	80.07	49.31	57.95*
Arapahoe-Roosevelt	5,769	75.6	247.2	0.31	228.7	0.33	42.85	39.64	13.10**
Routt	20,213	239.2	344.1	0.70	281.0	0.85	17.02	13.90	11.83**
Pike-San Isabel	1,266	8.6	93.1	0.09	79.8	0.11	73.54	63.03	6.79**
San Juan	17,014	441.5	488.9	0.90	403.3	1.09	28.74	23.70	25.95*
White River	2,114	43.0	284.3	0.15	230.2	0.19	134.48	108.89	20.34**
Regional Total	108,824	1,961.0	4,411.4	0.44	3,575.0	0.55	40.54	32.85	18.02**

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Transition Quarter 1976

Region 3

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Apache-Sitgreaves	34,251	1,360.6	831.9	1.64	642.9	2.12	24.29	18.77	39.72
Carson	9,540	336.2	348.5	0.96	294.1	1.14	36.53	30.83	35.24*
Cibola	2,358	21.8	168.5	0.13	147.4	0.15	71.46	62.51	9.25**
Coconino	20,471	1,560.3	530.2	2.94	400.9	3.89	25.90	19.58	56.22
Coronado	483	5.2	16.1	0.32	16.1	0.32	33.33	33.33	10.77**
Gila	4,135	94.7	321.0	0.29	275.5	0.34	77.63	66.63	22.90**
Kaibab	18,223	1,041.4	896.5	1.16	567.0	1.84	49.20	31.11	57.15
Lincoln	1,857	49.0	199.2	0.25	181.2	0.27	107.27	97.58	26.39**
Prescott	257	1.2	63.5	0.02	63.2	0.02	247.08	245.91	4.67**
Santa Fe	10,629	705.1	689.8	1.02	517.4	1.36	64.90	48.68	66.34
Tonto	2,702	51.4	47.7	1.08	35.7	1.44	17.65	13.21	19.02
Regional Total	104,906	5,226.9	4,568.7	1.14	3,535.6	1.48	43.55	33.70	49.82

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Transition Quarter 1976

Region 4

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Ashley	5,820	28.2	155.7	0.18	134.7	0.21	26.75	23.14	4.85**
Boise	65,196	4,719.8	800.2	5.90	656.8	7.19	12.27	10.07	72.39
Bridger-Teton	9,581	24.3	319.9	0.08	271.1	0.09	33.39	28.30	2.54**
Caribou	3,634	5.9	130.2	0.05	107.8	0.05	35.83	29.66	1.62**
Challis	3,261	90.4	123.1	0.73	92.5	0.98	37.75	28.37	27.72**
Dixie	5,006	33.3	268.0	0.12	221.5	0.15	53.54	44.25	6.65**
Fishlake	3,482	73.8	52.3	1.41	50.8	1.45	15.02	14.59	21.19
Humboldt	3	0.2	0.02	6.22	0.02	6.22	8.30	8.30	51.60
Manti-LaSal	723	18.0	68.7	0.26	66.6	0.27	95.02	92.12	24.90**
Payette	32,063	3,752.4	833.8	4.50	573.9	6.54	26.01	17.90	117.03
Salmon	11,702	396.3	352.5	1.12	296.5	1.34	30.12	25.34	33.87
Sawtooth	3,524	76.0	147.9	0.51	118.6	0.64	41.97	33.65	21.57**
Targhee	15,675	44.9	627.1	0.07	531.3	0.08	40.01	33.89	2.86**
Toiyabe	1,317	6.1	100.5	0.06	88.9	0.07	76.31	67.50	4.63**
Uinta	1,975	95.2	73.1	1.30	54.9	1.73	37.01	27.80	48.20
Wasatch-Cache	445	10.6	213.6	0.05	175.0	0.06	480.00	393.26	23.82**
Regional Total	163,408	9,375.4	4,859.3	1.93	3,931.3	2.38	29.74	24.06	57.37

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Transition Quarter 1976

Region 5

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Angeles	39	4.0	76.9	0.05	7.69	0.05	1971.58	1,971.58	103.78**
Cleveland	1,050	9.5	12.9	0.74	12.9	0.74	12.29	12.29	9.05**
Eldorado	60,129	7,624.4	1,436.5	5.31	883.2	8.63	23.89	14.69	126.80
Inyo	428	130.1	99.6	1.31	95.6	1.36	232.71	223.36	303.97
Klamath	70,889	8,848.0	2,383.3	3.71	1,703.4	5.19	33.62	24.03	124.81
Lassen	62,162	11,573.8	1,593.9	7.26	1,044.0	11.09	25.64	16.79	186.19
Los Padres	43	0.5	32.5	0.01	20.2	0.02	755.42	470.81	10.47**
Mendocino	37,685	4,076.7	2,202.9	1.85	1,261.6	3.23	58.46	33.48	108.18
Modoc	18,683	2,522.7	1,508.8	1.67	941.2	2.68	80.76	50.38	135.03
Six Rivers	48,949	4,220.8	2,585.4	1.63	1,603.3	2.63	52.82	32.75	86.23
Plumas	61,390	5,094.6	1,420.3	3.59	1,137.6	4.48	23.14	18.53	82.99
San Bernardino	4,207	273.8	323.1	0.85	224.4	1.22	76.80	53.34	65.08*
Sequoia	32,780	3,518.5	1,215.1	2.90	874.0	4.03	37.07	26.66	107.34
Shasta-Trinity	96,426	10,240.3	3,661.6	2.80	2,343.5	4.37	37.97	24.30	106.20
Sierra	35,888	4,716.5	1,532.6	3.08	1,008.1	4.68	42.71	28.09	131.42
Stanislaus	43,953	6,354.2	1,840.6	3.45	1,202.0	5.29	41.88	27.35	144.57
Tahoe	36,857	4,117.9	2,699.0	1.53	1,729.7	2.38	73.23	46.93	111.73
Regional Total	611,557	73,326.1	26,289.4	2.79	17,559.8	4.18	42.99	28.71	119.90

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Transition Quarter 1976

Region 6

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Deschutes	43,501	4,229.2	992.7	4.26	762.3	5.55	22.82	17.52	97.22
Fremont	66,537	3,196.5	932.9	3.43	716.1	4.46	14.02	10.76	48.04
Gifford Pinchot	133,957	12,359.5	1,897.9	6.51	1,398.3	8.84	14.17	10.44	92.26
Malheur	59,125	3,749.6	1,162.9	3.22	763.9	4.91	19.67	12.92	63.42
Mt. Baker-Snoqualmie	108,631	9,629.9	2,497.0	3.86	1,702.5	5.66	22.99	15.67	88.65
Mt. Hood	133,681	9,531.6	1,596.8	5.97	1,211.1	7.87	11.94	9.06	71.30
Ochoco	34,814	3,887.2	1,120.1	3.47	783.2	4.96	32.17	22.50	111.66
Okanogan	15,275	718.3	434.7	1.65	366.6	1.96	28.46	24.00	47.02
Olympic	98,360	4,778.4	2,279.3	2.10	1,572.3	3.04	23.17	15.99	48.58
Rogue River	57,594	3,326.9	1,548.9	2.15	1,128.6	2.95	26.89	19.60	57.76
Siskiyou	49,492	6,030.6	2,504.4	2.41	1,581.5	3.81	50.60	31.95	121.85
Siuslaw	70,571	8,679.3	2,663.1	3.26	1,640.2	5.29	37.74	23.24	122.99
Umatilla	93,534	3,188.0	1,220.3	2.61	847.0	3.76	13.05	9.06	34.08
Umpqua	98,531	8,909.8	2,834.2	3.14	1,917.8	4.65	28.76	19.46	90.43
Wallowa-Whitman	49,789	1,438.9	970.0	1.48	744.2	1.93	19.48	14.95	28.90
Wenatchee	63,629	1,992.4	1,243.3	1.60	902.8	2.21	19.54	14.19	31.31
Willamette	244,261	25,000.2	4,005.7	6.24	2,599.5	9.62	16.40	10.64	102.35
Winema	16,044	1,828.4	879.0	2.08	646.3	2.83	54.79	40.28	113.96
Colville Grasslands	28,412 5	737.2	1,039.3	0.71	803.4	0.92	36.58	28.28	25.95**
Regional Total	1,465,742	113,393.6	33,654.9	3.37	23,754.0	4.77	22.96	16.21	77.36

** Receipts below costs by 50% and 100% Roads Methods.

COSTS AND RECEIPTS COMPARISON

Transition Quarter 1976

Region 8

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
NFS in Alabama	18,912	603.5	719.9	0.84	691.8	0.87	38.07	36.58	31.91**
Daniel Boone	9,056	167.1	528.8	0.32	503.7	0.33	58.39	55.62	18.45**
Chattahoochee-Oconee	16,823	704.2	1,095.8	0.64	837.2	0.84	65.14	49.77	41.86**
Cherokee	12,082	575.8	782.9	0.74	580.6	0.99	64.80	48.06	47.66**
NFS in Florida	25,201	878.3	515.3	1.70	500.7	1.75	20.45	19.87	34.85
Kisatchie	51,570	2,878.8	1,092.4	2.64	937.5	3.07	21.18	18.18	55.82
NFS in Mississippi	67,448	3,582.5	1,064.2	3.37	1,029.1	3.48	15.78	15.26	53.11
George Washington	7,527	45.0	395.2	0.11	357.8	0.13	52.50	47.54	5.98**
Ouachita	52,163	1,950.1	1,366.5	1.43	1,230.5	1.58	26.20	23.59	37.38
Ozark-St. Francis	10,487	375.3	688.8	0.54	588.3	0.64	65.68	56.10	35.79**
NFS in N. Carolina	9,814	138.1	736.5	0.19	687.2	0.20	75.05	70.02	14.07**
Francis Marion-Sumter	17,722	841.4	804.3	1.05	710.8	1.18	45.38	40.11	47.48
NFS in Texas	34,230	3,447.1	1,241.0	2.78	819.4	4.21	36.25	23.94	100.70
Jefferson	3,452	25.5	303.2	0.08	288.1	0.09	87.83	83.46	7.39**
Caribbean	1	0.0	39.1	0.00	39.1	0.00	39,131.78	39,121.44	0.00**
Regional Total	336,488	16,212.8	12,160.3	1.33	10,653.0	1.52	36.14	31.66	48.18

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Transition Quarter 1976

Region 9

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Chequamegon	9,086	61.3	333.0	0.18	295.8	0.21	36.65	32.56	6.75**
Chippewa	11,542	91.9	422.3	0.22	375.3	0.24	36.59	32.52	7.96**
Huron-Manistee	16,232	45.8	344.6	0.13	335.7	0.14	21.23	20.68	2.82**
NFS in Missouri	13,093	125.3	419.3	0.30	399.0	0.31	32.02	30.47	9.57**
Nicolet	11,820	155.5	285.1	0.55	227.8	0.68	24.10	19.27	13.16**
Ottawa	10,482	160.2	602.1	0.27	436.3	0.37	57.44	41.62	15.28**
Shawnee	1,663	52.7	128.0	0.41	114.2	0.46	76.97	68.67	31.69**
Superior	14,333	115.4	622.7	0.19	530.5	0.22	43.45	37.01	8.05**
Hiawatha	11,196	104.2	552.9	0.19	402.6	0.26	49.38	35.96	9.31**
Wayne-Hoosier	2,579	100.5	128.0	0.78	125.3	0.80	49.63	48.58	38.97**
Allegheny	8,724	232.9	363.9	0.64	275.2	0.85	41.71	31.55	26.70**
Green Mountain	2,895	32.8	112.9	0.29	100.2	0.33	39.00	34.61	11.32**
Monongahela	2,366	20.3	168.3	0.12	127.7	0.16	71.13	53.97	8.59**
White Mountain	4,731	138.7	246.7	0.56	191.7	0.72	52.15	40.51	29.32**
Regional Total	120,744	1,437.4	5,209.9	0.28	4,417.3	0.33	43.15	36.58	11.90**

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Transition Quarter 1976

Region 10

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Tongass	109,602	729.8	3,489.2	0.21	2,455.9	0.30	31.84	22.41	6.66**
Chugach	7,658	5.2	415.8	0.01	381.9	0.01	54.29	49.86	0.68**
Regional Total	117,261	735.0	5,041.2	0.15	3,839.7	0.19	42.99	32.74	6.27**
NATIONAL TOTAL	3,471,965	239,520.0	113,855.6	2.10	85,050.7	2.82	32.79	24.50	68.99

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1977

Region 1

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Beaverhead	9,860	612.4	1,372.7	0.45	964.9	0.63	139.22	97.86	62.11**
Bitterroot	23,702	1,314.1	3,713.5	0.35	2,510.4	0.52	156.67	105.92	55.44**
Panhandle	286,766	21,752.0	15,635.8	1.31	10,514.7	2.07	54.52	36.67	75.85
Clearwater	196,323	11,340.1	7,342.8	1.54	5,132.4	2.21	37.40	26.14	57.76
Colville	See Region 6		See Region 6		See Region 6		See Region 6		
Custer	1,309	13.7	119.5	0.11	118.9	0.12	91.32	90.82	10.49**
Deerlodge	16,185	950.5	1,347.3	0.71	1,050.6	0.90	83.24	64.91	58.73**
Flathead	121,513	11,206.9	6,959.9	1.61	4,944.1	2.27	57.28	40.69	92.23
Gallatin	7,004	78.6	1,528.1	0.05	1,020.6	0.08	218.18	145.72	11.22**
Helena	7,189	109.2	796.2	0.14	715.6	0.15	110.75	99.54	15.19**
Kootenai	235,795	15,464.6	10,959.0	1.41	7,365.6	2.10	46.48	31.24	65.58
Lewis & Clark	8,760	243.6	668.8	0.36	549.1	0.44	76.35	62.68	27.81**
Lolo	96,401	6,308.5	7,116.4	0.89	5,059.5	1.25	73.82	52.48	65.44*
Nezperce	102,204	5,391.3	6,067.6	0.89	3,813.8	1.41	59.37	37.32	52.75*
Regional Total	1,113,011	73,558.3	68,023.0	1.08	47,462.1	1.55	61.12	42.64	66.09

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1977

Region 2

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Bighorn-Shoshone	26,176	596.7	1,244.3	0.48	986.8	0.60	47.54	37.70	22.80**
Black Hills	105,424	1,889.9	3,128.6	0.60	2,483.1	0.76	29.68	23.55	17.93**
Grand Mesa-Uncompahgre-Gunnison	15,503	280.2	1,010.6	0.28	829.4	0.34	65.19	53.50	18.07**
Medicine Bow	32,000	388.3	1,636.6	0.24	1,154.7	0.34	51.14	36.08	12.13**
Nebraska		0.0	7.0	0.00	7.0	0.00	---	---	--- **
Rio Grande	21,146	637.6	3,065.4	0.21	2,064.0	0.31	144.96	97.61	30.15**
Arapahoe-Roosevelt	21,007	532.7	915.1	0.58	772.0	0.69	43.56	36.75	25.36**
Routt	33,737	1,046.4	1,797.4	0.58	1,337.8	0.78	53.28	39.65	31.02**
Pike-San Isabel	4,149	117.4	427.0	0.27	383.9	0.31	102.92	92.53	28.30**
San Juan	54,756	2,293.7	2,987.7	0.77	2,256.4	1.02	54.56	41.21	41.89*
White River	12,400	143.7	1,209.8	0.12	927.8	0.15	97.56	74.82	11.59**
Regional Total	326,298	7,926.5	20,125.6	0.39	15,492.6	0.51	61.68	47.48	24.29**

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1977

Region 3

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Apache-Sitgreaves	117,690	6,731.2	3,984.6	1.69	3,152.7	2.14	33.86	26.79	57.19
Carson	37,235	1,950.4	1,774.9	1.10	1,344.3	1.45	47.67	36.10	52.38
Cibola	8,410	305.3	545.3	0.56	444.1	0.69	64.84	52.81	36.30**
Coconino	89,216	6,948.7	2,689.1	2.58	2.249.3	3.09	30.14	25.21	77.89
Coronado	3,706	17.0	95.5	0.18	95.5	0.18	25.77	25.77	4.60**
Gila	15,039	746.9	1,543.0	0.48	1,365.6	0.55	102.60	90.80	49.66**
Kaibab	69,932	4,228.7	2,672.0	1.58	2,198.5	1.92	38.21	31.44	60.47
Lincoln	11,612	508.1	704.0	0.72	654.2	0.78	60.63	56.34	43.76**
Prescott	2,631	17.1	193.7	0.09	183.3	0.09	73.62	69.68	6.50**
Santa Fe	34,925	2,244.3	2,500.1	0.90	1,939.6	1.16	71.58	55.54	64.26*
Tonto	11,136	147.5	758.3	0.19	509.9	0.29	68.09	45.79	13.25**
Regional Total	401,532	23,845.3	18,999.8	1.26	15,492.3	1.54	47.32	38.58	59.39

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1977

Region 4

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Ashley	9,295	230.2	876.8	0.26	642.8	0.36	94.33	69.16	24.77**
Boise	148,335	9,444.1	3,372.6	2.80	2,724.4	3.47	22.74	18.37	63.67
Bridger-Teton	31,490	765.0	1,459.9	0.52	1,142.7	0.67	46.36	36.29	24.29**
Caribou	16,615	149.3	484.4	0.31	412.8	0.36	29.15	24.85	8.98**
Challis	1,329	129.7	627.4	0.21	410.1	0.31	472.08	308.58	97.61**
Dixie	23,871	420.7	1,758.7	0.24	1,172.0	0.36	73.68	49.10	17.62**
Fishlake	2,146	155.0	223.7	0.69	174.9	0.89	104.24	81.50	72.23**
Humboldt	148	14.0	39.8	0.35	30.7	0.46	269.03	207.36	94.92**
Manti-LaSal	3,908	42.1	207.1	0.20	202.9	0.21	53.00	51.93	10.78**
Payette	86,808	8,043.2	3,329.5	2.42	2,223.9	3.62	38.35	25.62	92.66
Salmon	38,314	1,113.2	2,035.5	0.55	1,494.6	0.74	53.13	39.01	29.05**
Sawtooth	10,703	130.3	2,551.6	0.05	1,536.4	0.08	238.40	143.55	12.18**
Targhee	50,538	882.7	3,111.6	0.28	2,293.0	0.38	61.57	45.37	17.47**
Toiyabe	11,093	760.3	724.3	1.05	514.6	1.48	65.29	46.39	68.54
Uinta	1,594	67.0	173.7	0.39	146.6	0.46	108.95	91.96	42.03**
Wasatch-Cache	13,927	365.6	799.5	0.46	615.7	0.59	57.41	44.21	26.25**
Regional Total	450,115	22,085.6	23,981.4	0.92	17,654.5	1.25	53.28	39.22	49.07*

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1977

Region 5

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Angeles	824	15.8	207.4	0.08	207.4	0.08	251.74	251.74	19.21**
Cleveland	1,036	9.4	110.4	0.08	110.4	0.08	106.58	106.58	9.03**
Eldorado	86,608	9,727.6	8,177.8	1.19	4,733.9	2.06	94.42	54.66	112.32
Inyo	855	52.4	294.0	0.18	278.8	0.19	343.81	326.10	61.26**
Klamath	268,585	24,314.7	9,534.5	2.55	6,805.7	3.57	35.50	25.34	90.53
Lassen	176,941	24,286.7	2,566.7	9.46	2,184.4	11.12	14.51	12.35	137.26
Los Padres	847	4.3	70.5	0.06	70.5	0.06	83.20	83.18	5.07**
Mendocino	90,108	8,003.6	2,115.2	3.78	1,595.4	5.01	23.47	17.71	88.82
Modoc	60,362	6,937.6	3,765.4	1.84	2,472.7	2.81	62.38	40.96	114.93
Six Rivers	180,249	18,393.0	4,242.5	4.34	3,220.3	5.71	23.54	17.87	102.04
Plumas	180,755	18,048.2	6,572.6	2.75	4,762.4	3.80	36.36	26.35	99.85
San Bernardino	11,339	36.1	415.3	0.09	403.7	0.09	36.63	35.60	3.18**
Sequoia	124,792	4,224.0	3,755.0	1.13	2,730.2	1.55	30.09	21.88	33.85
Shasta-Trinity	270,767	32,264.4	8,775.3	3.69	6,001.0	5.40	32.41	22.16	119.16
Sierra	159,425	10,583.0	6,746.3	1.57	4,163.1	2.54	42.32	26.11	66.38
Stanislaus	136,574	17,000.5	8,360.5	2.03	5,058.1	3.36	61.22	37.04	124.48
Tahoe	132,095	10,449.1	4,047.5	2.58	2,978.0	3.51	30.64	22.54	79.10
Regional Total	1,882,163	184,370.4	75,399.1	2.45	52,483.4	3.51	40.06	27.88	97.96

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1977

Region 6

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Deschutes	206,556	23,816.9	5,213.8	4.57	3,798.6	6.27	25.24	18.39	115.30
Fremont	187,262	20,507.5	5,250.6	3.91	3,639.6	5.63	28.04	19.44	109.51
Gifford Pinchot	321,781	38,478.5	14,674.8	2.62	9,930.3	3.87	45.60	30.86	119.58
Malheur	190,401	16,297.5	4,420.5	3.69	3,093.6	5.27	23.22	16.25	85.60
Mt. Baker-Snoqualmie	226,026	31,480.4	10,146.3	3.10	6,714.1	4.69	44.89	29.70	139.28
Mt. Hood	309,686	31,067.9	14,233.7	2.18	9,061.4	3.43	45.96	29.26	100.32
Ochoco	143,405	16,219.9	4,772.0	3.40	3,170.7	5.12	33.28	22.11	113.11
Okanogan	80,313	6,005.9	2,852.2	2.11	2,238.4	2.68	35.51	27.87	74.78
Olympic	353,869	21,489.8	12,047.1	1.78	7,539.9	2.85	34.04	21.31	60.73
Rogue River	180,008	17,594.0	6,722.7	2.62	4,634.9	3.80	37.35	25.75	97.74
Siskiyou	168,792	22,701.7	9,677.9	2.35	6,612.4	3.43	57.34	39.17	134.50
Siuslaw	332,322	46,622.9	12,665.0	3.68	8,633.8	5.40	38.11	25.98	140.29
Umatilla	203,825	14,171.4	5,493.7	2.58	3,834.2	3.70	26.95	18.81	69.53
Umpqua	299,541	31,624.4	12,525.7	2.52	7,950.7	3.98	41.82	26.54	105.58
Wallowa-Whitman	163,225	10,586.3	5,349.1	1.98	3,946.0	2.68	32.77	24.18	64.86
Wenatchee	176,640	6,271.2	6,425.1	0.98	4,672.5	1.34	36.37	26.45	35.50*
Willamette	641,686	101,373.0	22,590.5	4.49	14,659.9	6.91	35.20	22.85	157.98
Winema	81,704	10,165.6	3,408.8	2.98	2,627.2	3.87	41.72	32.16	124.42
Colville	75,753	5,222.5	4,223.2	1.24	3,047.0	1.71	55.75	40.22	68.94
Regional Total	4,342,797	473,734.0	170,787.6	2.77	116,741.3	4.06	39.33	26.88	109.08

* Receipts below costs by 100% Roads method.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1977

Region 8

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FELT
NFS in Alabama	56,280	2,613.2	2,360.4	1.11	2,153.5	1.21	41.94	38.26	46.43
Daniel Boone	21,800	587.0	2,360.1	0.25	1,962.7	0.30	108.26	90.03	26.93**
Chattahoochee-Oconee	39,501	2,049.6	3,083.3	0.66	2,493.2	0.82	78.06	63.12	51.89**
Cherokee	32,583	805.2	2,132.7	0.38	1,710.2	0.47	65.45	52.49	24.71**
NFS in Florida	75,097	3,976.6	2,096.7	1.90	1,827.9	2.18	27.92	12.17	26.48
Kisatchie	137,564	9,859.4	4,584.0	2.15	3,378.9	2.92	33.32	24.56	71.67
NFS in Mississippi	189,373	14,882.9	5,717.4	2.60	4,535.5	3.28	30.19	23.95	78.59
George Washington	16,939	214.8	1,645.9	0.13	1,261.5	0.17	97.17	74.47	12.68**
Ouachita	185,398	10,326.7	7,978.4	1.29	5,976.5	1.73	43.03	32.24	55.70
Ozark-St. Francis	33,148	2,201.8	3,923.9	0.56	2,995.1	0.74	118.38	90.36	66.42**
NFS in N. Carolina	27,260	883.3	3,314.6	0.27	2,581.3	0.34	121.59	94.69	32.40**
Francis Marion-Sumter	113,011	3,944.6	5,447.3	0.72	3,741.4	1.05	48.20	33.11	34.90*
NFS in Texas	92,109	5,030.6	2,613.3	1.92	2,102.2	2.39	28.37	22.82	54.62
Jefferson	8,768	86.5	1,335.6	0.06	1,186.1	0.07	152.33	135.28	9.86**
Caribbean	2	0.0	232.5	0.00	232.5	0.00	116,239.41	116,239.41	0.00**
Regional Total	1,028,883	57,433.7	52,440.4	1.10	41,287.7	1.39	50.97	40.13	55.82

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1977

Region 9

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Chequamegon	44,480	695.8	1,530.2	0.45	1,290.8	0.54	34.40	29.02	15.64**
Chippewa	48,886	850.1	1,897.8	0.45	1,596.3	0.53	38.82	32.65	17.39**
Huron-Manistee	63,608	754.1	1,408.5	0.54	1,315.6	0.57	22.14	20.68	11.86**
NFS in Missouri	40,703	1,036.7	2,143.1	0.48	1,977.2	0.52	52.65	48.58	25.47**
Nicolet	51,994	1,000.7	1,188.0	0.84	1,038.2	0.96	22.85	19.97	19.25**
Ottawa	40,453	839.2	1,623.5	0.52	1,366.8	0.61	40.13	33.79	20.75**
Shawnee	6,949	123.4	546.1	0.23	499.9	0.25	78.59	71.94	17.76**
Superior	59,735	485.1	2,470.3	0.20	2,116.0	0.23	41.35	35.42	8.12**
Hiawatha	41,320	701.8	1,143.2	0.61	1,043.7	0.67	27.67	25.26	16.98**
Wayne-Hoosier	7,733	293.5	617.3	0.48	612.8	0.48	79.83	79.25	37.96**
Allegheny	31,228	1,256.9	1,774.6	0.71	1,368.4	0.92	56.83	43.82	40.25**
Green Mountain	8,281	412.9	706.2	0.58	537.1	0.77	85.27	64.86	49.86**
Monongahela	2,127	79.1	1,081.9	0.07	890.3	0.09	508.63	418.58	37.17**
White Mountain	23,986	736.0	1,143.8	0.64	853.7	0.86	47.68	35.59	30.69**
Regional Total	471,484	9,265.2	18,791.7	0.43	15,863.3	0.50	45.58	39.37	19.65**

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1977

Region 10

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Tongass	456,331	9,834.4	44,016.9	0.22	24,161.5	0.41	96.46	52.95	21.55**
Chugach	8,923	280.9	1,161.6	0.24	1,008.1	0.28	130.17	112.98	31.48**
Regional Total	465,254	10,115.3	48,389.3	0.21	27,977.0	0.36	104.01	60.13	21.74**
NATIONAL TOTAL	10,481,537	862,334.3	499,638.0	1.73	353,154.3	2.44	47.67	33.69	82.27

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1978

Region 1

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Beaverhead	13,420	447.9	2,023.4	0.22	1,339.8	0.33	150.77	99.84	33.38**
Bitterroot	39,189	1,256.2	2,514.7	0.50	1,970.4	0.64	64.17	50.28	32.05**
Panhandle	257,173	22,520.6	20,623.4	1.09	13,460.2	1.67	80.19	52.34	87.57
Clearwater	158,333	6,496.3	8,780.8	0.74	6,064.5	1.07	55.46	38.30	41.03*
Colville	See Region 6		See Region 6		See Region 6		See Region 6		
Custer	809	15.8	180.8	0.09	148.6	0.11	223.51	183.73	19.49**
Deerlodge	25,821	1,572.1	1,895.8	0.83	1,345.0	1.17	73.42	52.09	60.88*
Flathead	80,079	7,311.3	7,763.7	0.94	5,659.5	1.29	96.95	70.67	91.30*
Gallatin	16,869	592.7	1,385.3	0.43	1,036.6	0.57	82.12	61.45	35.14**
Helena	3,463	88.3	1,432.1	0.06	1,172.5	0.08	413.54	338.58	25.49**
Kootenai	191,336	13,412.3	12,270.3	1.09	8,431.2	1.59	64.13	44.06	70.10
Lewis & Clark	10,190	317.2	1,115.6	0.28	934.6	0.34	109.48	91.72	31.13**
Lolo	64,116	5,120.6	7,282.4	0.70	5,187.7	0.99	113.58	80.91	79.86**
Nezperce	84,245	3,235.7	6,971.7	0.46	4,461.3	0.73	82.76	52.96	38.41**
Regional Total	945,041	61,547.5	79,451.5	0.77	55,380.6	1.11	84.07	58.60	65.13*

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1978

Region 2

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Bighorn-Shoshone	18,223	601.2	2,237.3	0.27	1,694.5	0.36	122.77	92.99	32.99**
Black Hills	118,858	3,141.7	4,847.7	0.69	3,490.7	0.90	40.79	29.37	26.43**
Grand Mesa-Uncompahgre-Gunnison	13,637	235.5	1,290.6	0.18	1,090.3	0.22	94.64	79.95	17.27**
Medicine Bow	26,755	434.9	3,194.4	0.14	2,117.4	0.21	119.39	79.14	16.25**
Nebraska		0.0	2.1	0.00	2.1	0.00	---	---	--- **
Rio Grande	15,077	399.6	2,769.0	0.14	1,876.2	0.21	183.66	124.44	26.50**
Arapahoe-Roosevelt	21,971	188.2	1,535.3	0.12	1,277.6	0.15	69.88	58.15	8.57**
Routt	23,767	460.4	1,999.2	0.23	1,449.8	0.32	84.12	61.00	19.37**
Pike-San Isabel	4,938	82.4	707.3	0.12	689.0	0.12	143.24	139.53	16.69**
San Juan	28,273	589.8	2,907.3	0.20	2,477.1	0.24	102.83	87.61	20.86**
White River	10,653	155.0	1,585.4	0.10	1,149.7	0.13	148.82	107.92	14.55**
Regional Total	282,152	6,295.3	25,230.5	0.25	19,165.5	0.33	89.42	67.93	22.31**

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1978

Region 3

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Apache-Sitgreaves	111,141	8,394.9	4,817.8	1.74	3,709.7	2.26	43.35	33.38	75.53
Carson	25,953	1,411.1	2,463.1	0.57	1,803.3	0.78	94.91	69.48	54.37**
Cibola	12,078	773.6	1,348.2	0.57	883.0	0.88	111.62	73.11	64.05**
Coconino	77,939	6,467.1	3,456.2	1.87	2,866.4	2.26	44.34	36.78	82.98
Coronado	4,708	43.3	92.8	0.47	92.8	0.47	19.71	19.71	9.19**
Gila	20,313	1,148.4	1,929.2	0.60	1,440.2	0.80	94.97	70.90	56.54**
Kaibab	59,124	3,885.6	3,223.0	1.21	2,661.0	1.46	54.51	45.01	65.72
Lincoln	10,728	405.9	954.2	0.43	837.3	0.48	88.95	78.05	37.84**
Prescott	2,760	18.3	180.8	0.10	179.9	0.10	65.52	65.18	6.64**
Santa Fe	44,800	2,988.6	2,739.1	1.09	2,053.0	1.46	61.14	45.83	66.71
Tonto	10,824	134.7	973.8	0.14	636.6	0.21	89.97	58.82	12.45**
Regional Total	380,368	25,671.5	23,720.9	1.08	18,477.8	1.39	62.36	48.58	67.49

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1978

Region 4

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Ashley	13,895	437.2	1,905.6	0.23	1,188.5	0.37	137.14	85.53	31.46**
Boise	93,936	6,633.6	4,057.8	1.63	3,293.2	2.01	43.20	35.06	70.62
Bridger-Teton	29,107	1,331.7	1,752.1	0.76	1,461.7	0.91	60.19	50.22	45.75**
Caribou	3,669	66.8	463.6	0.14	399.8	0.17	126.35	108.97	18.22**
Challis	3,756	61.2	336.2	0.18	274.6	0.22	89.51	73.11	16.30**
Dixie	20,900	759.4	1,799.8	0.42	1,242.4	0.61	86.11	59.44	36.33**
Fishlake	2,491	126.4	148.8	0.85	144.7	0.87	59.74	58.09	50.33**
Humboldt	15	7.3	24.3	0.30	24.3	0.30	1,621.33	1,621.33	488.96**
Manti-LaSal	2,255	86.0	191.7	0.45	184.5	0.47	26.43	25.43	11.85**
Payette	71,152	7,472.2	3,369.5	2.21	2,497.0	2.99	47.36	35.09	105.02
Salmon	35,592	1,148.3	2,282.6	0.50	1,682.2	0.68	64.13	47.26	32.26**
Sawtooth	10,295	263.5	1,323.1	0.20	982.8	0.27	128.52	95.46	25.59**
Targhee	63,708	1,824.8	5,466.7	0.33	3,694.1	0.49	85.81	57.98	28.64**
Toiyabe	17,846	284.8	450.8	0.63	332.0	0.86	25.26	18.60	15.96**
Uinta	5,511	286.5	221.7	1.30	207.9	1.38	40.23	37.72	51.98
Wasatch-Cache	11,725	349.4	679.1	0.51	617.3	0.57	57.92	52.65	29.80**
Regional Total	385,853	21,177.0	27,544.4	0.77	20,656.5	1.03	71.39	53.53	54.88*

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1978

Region 5

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Angeles	1,063	11.3	323.3	0.03	323.0	0.03	304.14	304.14	9.55**
Cleveland	829	8.2	85.5	0.10	85.5	0.10	103.14	103.14	9.84**
Eldorado	111,588	11,639.9	5,091.2	2.29	3,579.9	3.25	45.62	32.08	104.31
Inyo	2,780	59.5	267.6	0.22	247.5	0.24	96.25	89.04	21.40**
Klamath	227,317	29,734.7	12,103.7	2.46	8,968.2	3.32	35.88	26.59	130.81
Lassen	151,529	22,935.5	5,014.2	4.57	3,692.1	6.21	33.09	24.37	151.36
Los Padres	1,950	7.4	66.7	0.11	66.5	0.11	34.20	34.12	3.78**
Mendocino	73,063	6,371.4	6,501.9	0.98	4,022.8	1.58	88.99	55.06	87.20*
Modoc	123,165	16,266.2	6,834.1	2.38	4,229.4	3.85	55.49	34.34	132.07
Six Rivers	136,445	17,557.5	7,430.7	2.36	5,235.8	3.35	54.46	38.37	128.68
Plumas	216,157	17,376.0	9,381.4	1.85	6,987.4	2.49	43.40	32.33	80.39
San Bernardino	4,904	57.2	463.3	0.12	463.1	0.12	94.48	94.43	9.10**
Sequoia	86,219	4,907.4	5,250.2	0.93	3,581.2	1.37	60.89	41.54	56.92*
Shasta-Trinity	227,904	30,541.1	13,017.5	2.35	8,748.2	3.49	57.12	38.39	134.01
Sierra	161,212	11,798.9	9,284.8	1.27	5,928.0	1.99	57.59	36.77	73.19
Stanislaus	145,471	17,164.1	6,577.4	2.61	4,455.0	3.85	45.21	30.62	117.99
Tahoe	103,626	8,827.1	6,439.8	1.37	4,378.1	2.02	62.14	42.25	85.18
Regional Total	1,775,256	195,263.4	98,605.1	1.98	68,710.2	2.84	55.54	38.70	109.99

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1978

Region 6

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Deschutes	178,441	21,892.9	5,505.4	3.98	4,338.6	5.05	30.85	24.31	122.69
Fremont	159,534	20,015.5	5,743.2	3.49	4,501.9	4.45	36.00	28.22	125.46
Gifford Pinchot	340,528	47,930.5	13,874.7	3.45	9,603.7	4.99	40.74	28.20	140.75
Malheur	181,371	17,369.1	7,203.9	2.41	4,642.5	3.74	39.72	25.60	95.77
Mt. Baker-Snoqualmie	247,629	32,032.4	8,063.4	3.97	6,127.0	5.23	32.56	24.74	129.36
Mt. Hood	282,753	34,496.9	12,698.5	2.72	8,687.6	3.97	44.91	30.73	122.00
Ochoco	146,011	16,636.6	5,589.3	2.98	3,939.9	4.22	38.28	26.98	113.94
Okanogan	54,984	4,947.2	4,323.7	1.14	2,998.9	1.65	78.64	54.54	89.98
Olympic	297,432	22,357.6	9,421.2	2.37	6,912.2	3.23	31.68	23.24	75.17
Rogue River	196,560	25,469.9	8,019.7	3.18	5,685.0	4.48	40.80	28.92	129.58
Siskiyou	215,920	30,650.3	9,773.2	3.14	6,670.9	4.59	45.26	30.90	141.95
Siuslaw	314,985	54,936.0	13,592.9	4.04	9,660.3	5.69	43.15	30.67	174.40
Umatilla	152,660	12,464.8	4,871.2	2.56	3,308.4	3.77	31.91	21.67	81.65
Umpqua	359,918	46,081.3	18,944.5	2.43	11,592.3	3.98	52.64	32.21	128.03
Wallowa-Whitman	190,269	10,988.3	10,175.8	1.08	6,588.7	1.67	53.48	34.63	57.75
Wenatchee	135,672	6,729.1	5,588.8	1.20	4,457.8	1.51	41.19	32.86	49.60
Willamette	693,106	105,187.8	22,737.7	4.63	16,294.2	6.46	32.81	23.51	151.76
Winema	112,154	17,760.3	3,885.3	4.57	3,460.6	5.13	34.64	30.86	158.36
Colville	80,734	6,340.3	5,509.4	1.15	3,959.0	1.60	68.24	49.04	78.53
Regional Total	4,340,661	532,864.1	184,477.6	2.89	131,355.9	4.06	42.50	30.26	122.76

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1978

Region 8

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
NFS in Alabama	50,690	2,338.3	3,263.4	0.72	2,925.9	0.80	64.38	57.72	46.13**
Daniel Boone	15,569	299.9	3,210.1	0.09	2,888.3	0.10	206.19	185.52	19.26**
Chattahoochee-Oconee	49,631	3,219.5	3,973.9	0.81	3,167.2	1.02	80.07	63.81	64.87*
Cherokee	27,716	591.5	2,566.2	0.23	1,990.0	0.30	92.59	71.80	21.34**
NFS in Florida	64,698	3,407.2	2,212.1	1.54	2,030.3	1.68	34.19	31.38	52.66
Kisatchie	161,416	10,692.4	4,083.3	2.62	3,187.7	3.35	25.30	19.75	66.24
NFS in Mississippi	225,160	16,689.7	6,314.5	2.64	4,960.2	3.36	28.04	22.03	74.12
George Washington	18,245	321.2	1,962.8	0.16	1,430.7	0.22	107.58	78.42	17.61**
Ouachita	189,098	11,361.0	9,017.3	1.26	6,770.2	1.68	47.69	35.80	60.08
Ozark-St. Francis	34,181	1,408.1	3,751.4	0 39	2,998.5	0.47	109.75	87.72	41.20**
NFS in N. Carolina	27,539	1,114.5	3,701.8	0.30	2,841.5	0.39	134.42	103.18	40.47**
Francis Marion-Sumter	98,392	7,574.7	5,428.1	1.40	3,644.9	2.08	55.17	37.04	76.98
NFS in Texas	63,501	5,175.7	2,834.4	1.83	2,385.7	2.17	44.64	37.57	81.51
Jefferson	6,953	96.7	1,475.2	0.07	1,248.1	0.08	212.17	179.51	13.91**
Caribbean	8	1.6	188.7	0.01	188.7	0.01	23,590.42	23,590.42	203.00**
Regional Total	1,032,796	64,341.9	57,566.2	1.12	45,808.3	1.40	55.74	44.35	62.30

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1978

Region 9

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Chequamegon	34,740	504.1	1,407.9	0.36	1,237.5	0.41	40.53	35.62	14.46**
Chippewa	53,602	673.6	2,141.3	0.31	1,932.4	0.35	39.95	36.05	12.57**
Huron-Manistee	72,285	630.8	1,746.2	0.36	1,601.2	0.39	24.16	22.15	8.72**
NFS in Missouri	41,384	1,092.3	2,203.4	0.50	2,016.7	0.54	53.24	48.73	26.39**
Nicolet	51,079	705.6	1,372.2	0.51	1,146.8	0.62	26.86	22.45	13.81**
Ottawa	37,173	723.9	1,739.4	0.42	1,523.9	0.48	46.79	40.99	19.47**
Shawnee	4,245	62.4	735.2	0.08	682.7	0.09	173.18	160.82	14.70**
Superior	65,588	496.9	2,818.1	0.18	2,319.3	0.21	42.97	35.36	7.53**
Hiawatha	47,049	592.8	1,066.1	0.56	979.9	0.61	22.66	20.83	12.60**
Wayne-Hoosier	6,507	340.4	520.0	0.65	516.3	0.66	79.92	79.35	52.31**
Allegheny	26,813	1,731.0	1,939.5	0.89	1,487.3	1.16	72.34	55.47	64.56*
Green Mountain	4,808	145.4	794.8	0.18	603.6	0.24	165.31	125.55	30.23**
Monongahela	8,886	158.7	1,809.3	0.09	1,337.7	0.12	203.62	150.54	17.86**
White Mountain	25,443	776.3	1,470.0	0.53	1,081.4	0.72	57.77	42.50	30.51**
Regional Total	479,602	8;634.1	23,508.7	0.37	20,180.1	0.43	49.02	42.08	18.00**

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

Fiscal Year 1978

Region 10

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Tongass	449,814	11,849.6	15,968.8	0.74	10,614.2	1.12	35.50	23.60	26.34**
Chugach	7,981	471.8	1,379.2	0.34	1,193.0	0.40	172.81	149.48	59.12**
Regional Total	457,796	12,321.4	19,988.3	0.62	14,146.3	0.87	43.66	30.90	26.91**
NATIONAL TOTAL	10,079,525	928,116.2	540,093.2	1.72	393,881.2	2.36	53.58	39.08	92.08

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

TOTAL

Region 1

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Beaverhead	73,044	2,292.3	6,708.2	0.34	4,831.9	0.47	91.84	66.15	31.38**
Bitterroot	143,103	6,188.4	12,569.0	0.49	9,489.9	0.65	87.83	66.32	43.24**
Panhandle	1,264,908	83,886.2	69,121.2	1.21	47,569.2	1.76	54.65	37.61	66.32
Clearwater	903,248	38,610.2	39,900.3	0.97	27,421.1	1.41	44.17	30.36	42.75*
Colville	See Region 6		See Region 6		See Region 6		See Region 6		
Custer	7,546	64.6	762.7	0.08	701.9	0.09	101.07	93.01	8.57**
Deerlodge	102,823	4,625.9	7,203.3	0.64	5,434.5	0.85	70.06	52.85	44.99**
Flathead	503,531	37,406.9	30,382.8	1.23	22,476.0	1.66	60.34	44.64	74.29
Gallatin	59,804	1,589.1	5,924.2	0.27	4,523.1	0.35	99.06	75.63	26.57**
Helena	57,263	1,086.3	5,117.0	0.21	4,372.8	0.25	89.36	76.36	18.97**
Kootenai	955,532	45,111.6	41,787.3	1.08	30,096.1	1.50	43.73	31.50	47.21
Lewis & Clark	51,239	1,259.9	4,068.6	0.31	3,335.0	0.38	79.40	65.09	24.59**
Lolo	520,471	29,710.9	30,299.0	0.98	22,722.0	1.31	58.21	43.66	57.08*
Nezperce	547,482	18,623.7	23,325.0	0.80	16,003.1	1.16	42.60	29.21	34.02*
Regional Total	5,189,991	271,283.5	301,759.3	0.90	219,113.9	1.24	58.14	42.22	52.27*

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

TOTAL

Region 2

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Bighorn-Shoshone	87,235	1,649.8	6,995.5	0.24	5,587.7	0.30	80.19	64.05	18.90**
Black Hills	543,245	8,301.3	14,957.9	0.55	11,754.0	0.71	27.53	21.64	15.28**
Grand Mesa-Uncompahgre-Gunnison	81,820	1,310.8	4,415.6	0.30	3,745.0	0.35	53.97	45.77	16.02**
Medicine Bow	158,748	3,703.3	10,283.1	0.36	7,284.2	0.51	64.78	45.87	23.33**
Nebraska	109	0.5	15.6	0.03	15.6	0.03	143.35	143.35	4.28**
Rio Grande	110,663	3,588.1	9,902.4	0.36	7,017.4	0.51	89.48	63.41	32.42**
Arapahoe-Roosevelt	102,104	1,552.3	3,993.5	0.39	3,352.5	0.46	39.11	32.83	15.20**
Routt	146,461	2,715.7	7,944.1	0.34	6,019.7	0.45	54.21	41.10	9.27**
Pike-San Isabel	28,802	424.8	1,986.0	0.21	1,866.8	0.23	68.95	64.81	14.75**
San Juan	258,509	7,217.3	12,975.1	0.56	10,164.4	0.71	50.19	39.32	27.92**
White River	60,054	828.7	4,662.8	0.18	3,581.2	0.23	77.63	59.63	13.80**
Regional Total	1,577,753	31,299.3	89,293.4	0.35	69,990.9	0.45	56.60	44.36	19.84**

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

TOTAL

Region 3

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Apache-Sitgreaves	647,720	32,933.8	19,974.7	1.65	15,624.2	2.11	30.84	24.12	50.85
Carson	173,814	7,471.3	8,156.7	0.92	6,560.7	1.14	46.93	37.75	42.98*
Cibola	44,864	1,767.6	3,851.7	0.46	2,970.4	0.60	85.85	66.21	39.40**
Coconino	403,740	24,127.3	12,050.1	2.00	10,075.2	2.39	29.85	24.95	59.76
Coronado	19,584	110.8	372.2	0.30	372.2	0.30	19.01	19.01	6.57**
Gila	88,327	3,141.4	6,273.6	0.50	5,283.0	0.59	71.03	59.81	35.57**
Kaibab	334,584	18,362.3	12,563.4	1.46	9,864.0	1.86	37.55	39.48	54.88
Lincoln	56,683	1,983.5	3,716.9	0.53	3,229.4	0.61	65.57	56.97	34.99**
Prescott	16,894	125.7	977.9	0.13	957.8	0.13	57.88	56.69	7.44**
Santa Fe	201,490	10,038.2	11,142.5	0.90	8,841.5	1.14	55.30	43.88	49.82*
Tonto	58,242	828.2	2,769.9	0.30	2,033.7	0.41	47.56	34.92	14.22**
Regional Total	2,045,942	100,890.1	90,679.2	1.11	73,446.3	1.37	86.70	70.22	96.46

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

TOTAL

Region 4

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Ashley	66,772	1,060.8	4,268.8	0.25	3,064.7	0.35	63.93	45.94	15.89**
Boise	673,882	33,444.3	16,193.9	2.07	13,231.1	2.53	24.03	19.63	49.63
Bridger-Teton	148,949	3,834.6	6,597.7	0.58	5,719.0	0.67	44.30	38.40	25.74**
Caribou	52,009	484.8	2,396.3	0.20	2,050.5	0.24	46.07	39.43	9.32**
Challis	25,105	644.4	2,000.3	0.32	1,590.7	0.41	79.68	63.36	25.67**
Dixie	105,433	1,952.5	5,950.2	0.33	4,461.3	0.44	56.44	42.31	18.52**
Fishlake	14,215	560.4	858.8	0.65	750.3	0.75	60.42	52.78	39.42**
Humboldt	318	57.6	103.7	0.56	94.6	0.61	326.19	297.50	181.06**
Manti-LaSal	28,321	577.3	1,265.1	0.46	1,216.5	0.47	44.67	42.95	20.39**
Payette	397,229	31,208.1	15,045.4	2.07	10,767.0	2.90	37.88	27.11	78.56
Salmon	180,399	5,314.8	7,279.4	0.73	5,787.2	0.92	40.35	32.08	29.46**
Sawtooth	53,942	1,051.4	5,771.6	0.18	3,996.8	0.26	107.00	74.09	19.49**
Targhee	313,692	7,145.4	14,634.9	0.49	10,921.1	0.65	46.65	34.81	22.78**
Toiyabe	45,042	1,606.3	1,961.8	0.82	1,587.8	1.01	43.55	35.25	35.66*
Uinta	13,876	652.0	778.3	0.84	686.3	0.95	56.13	24.73	23.50**
Wasatch-Cache	61,815	1,616.4	3,422.0	0.47	2,808.4	0.58	55.36	45.43	26.15**
Regional Total	2,181,000	90,626.9	100,022.1	0.91	78,407.5	1.16	45.86	35.95	41.55*

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

APPENDIX 2: Categorization of Timber Sale Prices

Great controversy exists concerning the price of timber sold from the national forests. Critics contend that large quantities of this timber are sold at prices which do not recover the Forest Service's management costs (a hypothesis which the findings of NRDC's income versus expense analysis fully substantiate). On the other hand, purchasers of timber from the national forests complain of the high prices they must pay for federal timber. To shed further light on this controversy, we have analyzed timber sales records for calendar year 1978 and categorized those sales by the prices which they brought.

The Timber Management Division of the Forest Service has records for the timber sales transacted in 1978. These records include information on where the respective sale was made, who purchased the timber, the appraised price of each species of tree in the sale, the selling price of each species, and other details of the sale.

The timber in a sale may be sold by various units of measure. In 1978, the Forest Service used several different units: thousand board feet (mbf), hundred cubic feet (ccf), cords, and tons. These units are not all directly convertible from one to another.[16/] Therefore, in the categorization

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16/A board foot of wood is the amount of wood in a board 12" x 12" x 1".

A cubic foot of wood is just that -- the amount of wood that would occupy a cubic foot.

A cord of wood is the amount of cut and stacked wood in a pile 4' x 4' x 8'.

A ton of wood is, of course, 2,000 pounds of wood.

Obviously, the volume measures -- thousand board feet, hundred cubic feet, and cords -- cannot be converted into a weight measure and vice versa. Less obvious are the reasons why the volume measures cannot be directly converted into one another.

Between cords and the other two volume measures, the barrier to conversion lies in the imprecision of cord measure. Principly a measure of fuelwood, a cord is a loose stack of whole or split logs, not boards. Clearly, the amount of wood in a cord is not equivalent to the amount of board feet or

process the different units were kept separate.

Salvage sales are made for purposes other than just selling the timber: for instance, salvage sales may be made to control spread of insects or disease, or to clear out dead and dying trees. Because the main goal of salvage sales may be other than the revenues, it has been suggested by federal timber purchasers that low-priced timber sales are largely due to salvage sales. To test this idea, NRDC kept salvage sales separate from other timber sales in the tables which follow. Thus, for timber sold in thousand board feet and timber sold in hundred cubic feet, the first chart shows the prices received for timber not sold in salvage sales, and the second chart shows the salvage sales prices.

Timber sales often include several species, all of which are priced separately. This study categorized the prices received for each species, rather than for each sale, to provide the most accurate information available concerning the actual prices at which timber was sold, rather than average prices per sale. Additionally, the "statistical high bid," rather than the "high bid," was used as the price paid. The statistical high bid is the amount the purchaser actually pays for the timber, while the high bid includes the credit the purchaser receives for building sale roads.

Footnote 16/ Cont'd.:
cubic feet in a tight stack of finished boards in a 4' x 4' x 8' pile.

The lack of accurate conversion between board feet and cubic feet is due to the fact that these are calculated for an unmilled log. The board foot measure -- the prevailing measure for sawtimber -- calculates only the volume of finished boards that can be produced from a log. It ignores the rounded edges of the log which will be cut away in producing square-edged dimension lumber and also excludes tne kerfs, the wood that will be destroyed by the saw blade. The cubic foot measure, far less frequently used to measure sawtimber, calculates the entire volume of the log. Thus while a thousand board feet of finished boards equal 83 cubic feet of finished boards (one board foot equals .083 cubic feet), a log measured as containing a thousand board feet would be measured at considerably more than 83 cubic feet (or .83 hundred cubic feet) due to the volume of the rounded edges and kerfs which the board foot calculations ignore.

COSTS AND RECEIPTS COMPARISON

TOTAL

Region 5

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Angeles	3,659	53.5	971.7	0.06	971.4	0.06	265.55	265.48	14.61**
Cleveland	6,518	51.0	531.0	0.10	531.0	0.10	81.47	81.47	7.83**
Eldorado	653,699	53,460.3	22,942.8	2.33	14,997.3	3.56	35.10	27.53	81.78
Inyo	24,794	1,323.1	1,442.9	0.92	1,365.2	0.97	58.20	55.06	53.36**
Klamath	1,196,325	103,936.7	42,577.3	2.44	31,355.4	3.31	35.59	26.21	86.88
Lassen	854,708	104,927.0	17,906.8	5.86	13,345.2	7.86	20.95	15.61	122.76
Los Padres	6,028	25.1	302.8	0.08	297.0	0.08	50.23	49.27	4.17**
Mendocino	366,050	29,228.9	20,800.5	1.40	13,322.2	2.21	56.82	36.39	79.85
Modoc	391,002	42,317.7	18,489.1	2.29	12,170.2	3.48	47.29	31.13	108.23
Six Rivers	858,219	75,108.9	35,098.3	2.14	23,505.0	3.20	40.90	27.39	87.52
Plumas	999,401	76,713.8	37,142.7	2.07	26,365.1	2.91	37.16	26.38	76.76
San Bernardino	74,404	1,968.8	2,481.1	0.79	2,294.6	0.86	33.35	30.84	26.46**
Sequoia	565,160	30,528.1	19,412.9	1.57	14,137.9	2.16	34.35	25.02	54.02
Shasta-Trinity	1,253,626	122,304.9	48,034.7	2.55	32,113.6	3.81	38.32	25.62	97.56
Sierra	777,432	42,572.6	28,581.4	1.49	18,632.7	2.28	36.76	23.97	54.76
Stanislaus	697,878	66,014.1	35,104.3	1.88	21,861.7	3.02	50.30	31.33	94.59
Tahoe	663,878	44,655.3	25,236.0	1.77	17,486.2	2.55	38.01	26.34	67.26
Regional Total	9,392,815	795,190.4	381,566.4	2.08	264,748.3	3.00	40.62	28.19	84.66

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

TOTAL

Region 6

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Deschutes	994,134	86,125.3	22,025.8	3.91	17,018.9	5.06	22.16	17.12	86.63
Fremont	840,708	72,014.9	22,752.0	3.17	16,389.1	4.39	27.06	19.49	85.66
Gifford Pinchot	1,965,226	183,663.0	50,069.8	3.67	35,331.0	5.20	25.48	17.98	93.46
Malheur	1,035,317	63,121.4	2 439.2	2.58	16,789.0	3.76	23.61	16.22	60.97
Mt. Baker-Snoqualmie	1,297,598	132,692.5	43,641.9	3.04	30,114.9	4.41	33.63	23.21	10.23
Mt. Hood	1,715,746	145,957.0	47,671.1	3.06	32,930.8	4.43	27.78	19.19	85.07
Ochoco	756,153	63,474.7	21,640.5	2.93	14,838.1	4.28	28.62	19.62	83.94
Okanogan	404,398	21,977.4	13,049.5	1.68	10,083.0	2.18	32.27	24.93	54.35
Olympic	1,529,922	94,322.7	45,516.8	2.08	29,916.6	3.15	29.75	19.55	61.65
Rogue River	880,379	78,566.4	29,472.6	2.67	21,394.7	3.67	33.48	24.30	89.24
Siskiyou	961,849	108,448.8	42,035.8	2.58	28,533.9	3.80	43.70	29.67	112.75
Siuslaw	1,608,797	190,539.3	58,651.1	3.25	40,237.5	4.74	36.46	25.01	118.44
Umatilla	1,011,456	48,811.8	24,295.8	2.01	16,739.5	2.92	24.02	16.55	48.26
Umpqua	1,828,318	154,543.0	60,043.7	2.57	38,013.2	4.07	32.84	20.79	84.53
Wallowa-Whitman	783,524	37,395.7	28,826.0	1.30	20,266.0	1.85	36.79	25.87	47.73
Wenatchee	796,771	27,754.6	26,822.3	1.03	20,015.8	1.39	33.66	25.12	34.83
Willamette	3,442,779	386,431.9	95,598.7	4.04	63,250.1	6.11	27.77	18.37	112.24
Winema	592,151	52,453.3	16,036.6	3.27	12,932.5	4.06	27.08	21.84	88.58
Colville	383,871	23,880.7	21,893.3	1.09	15,903.8	1.50	57.03	41.43	62.21
Grasslands	95								
Regional Total	22,829,192	1,968,991.4	731,325.1	2.69	512,453.2	3.84	32.03	22.45	86.25

COSTS AND RECEIPTS COMPARISON

TOTAL

Region 8

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
NFS in Alabama	279,265	11,474.4	13,022.6	0.88	12,034.0	0.95	46.63	43.09	41.09**
Daniel Boone	125,374	2,450.1	10,516.0	0.23	9,595.7	0.26	83.88	76.54	19.54**
Chattahoochee-Oconee	274,595	11,612.6	15,140.0	0.77	12,724.5	0.91	55.14	46.34	42.29**
Cherokee	168,809	4,522.2	10,620.2	0.43	8,523.8	0.53	62.91	50.49	26.79**
NFS in Florida	357,903	18,248.5	10,489.7	1.74	9,604.8	1.90	29.31	26.84	50.99
Kisatchie	760,450	47,272.1	18,886.4	2.50	15,118.2	3.13	24.84	19.88	62.16
NFS in Mississippi	863,910	57,807.6	24,959.3	2.32	20,936.1	2.76	28.89	24.23	66.91
George Washington	116,186	1,367.3	6,806.2	0.20	5,726.4	0.24	58.58	49.29	11.77**
Ouachita	951,868	43,374.0	34,824.1	1.25	27,543.5	1.57	36.59	28.94	45.57
Ozark-St. Francis	182,668	8,274.8	15,443.0	0.54	13,029.5	0.64	84.54	71.33	45.30**
NFS in N. Carolina	232,303	5,894.8	14,860.5	0.40	12,487.9	0.47	63.97	53.76	25.38**
Francis Marion-Sumter	595,002	29,575.2	20,335.6	1.45	15,235.5	1.94	34.18	25.61	49.71
NFS in Texas	430,548	29,273.9	15,830.9	1.85	12,777.8	2.29	36.77	29.68	67.99
Jefferson	69,061	790.6	5,819.0	0.14	5,292.1	0.15	84.26	76.63	11.45**
Caribbean	11	3.4	684.1	0.00	682.6	0.01	62,193.64	62,050.86	310.29**
Regional Total	5,408,001	271,963.1	236,451.5	1.15	197,983.7	1.37	43.72	36.61	50.29

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

TOTAL

Region 9

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Chequamegon	225,211	2,198.0	7,101.6	0.31	6,220.9	0.35	31.53	27.62	9.76**
Chippewa	239,609	2,946.6	8,514.6	0.35	7,621.5	0.39	35.54	31.81	12.30**
Huron-Manistee	313,694	2,197.7	7,078.5	0.31	6,562.0	0.33	22.56	20.92	7.01**
NFS in Missouri	225,287	4,971.7	10,111.7	0.49	9,583.8	0.52	44.88	42.54	22.07**
Nicolet	260,703	3,350.5	5,768.2	0.58	5,085.9	0.66	22.13	19.51	12.85**
Ottawa	195,533	3,281.8	7,457.5	0.44	6,444.3	0.51	38.14	32.96	16.78**
Shawnee	25,524	563.8	2,816.4	0.20	2,562.9	0.22	110.34	100.41	22.09**
Superior	349,993	2,602.6	13,098.2	0.20	11,348.0	0.23	37.42	32.42	7.44**
Hiawatha	168,536	2,236.1	6,309.0	0.35	5,612.9	0.40	37.43	33.30	13.27**
Wayne-Hoosier	36,130	1,268.3	2,738.4	0.46	2,685.8	0.47	75.79	74.34	35.10**
Allegheny	203,675	8,100.8	8,168.2	0.99	6,425.5	1.26	40.10	31.55	39.77*
Green Mountain	43,488	1,152.2	3,407.7	0.34	2,786.6	0.41	38.36	64.08	26.49**
Monongahela	56,211	843.8	5,706.9	0.15	4,696.2	0.18	101.53	83.55	15.01**
White Mountain	115,290	3,021.7	5,046.6	0.60	3,975.3	0.76	43.77	34.48	26.21**
Regional Total	2,460,883	38,783.4	102,968.2	0.38	90,918.9	0.43	41.84	36.95	15.76**

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

COSTS AND RECEIPTS COMPARISON

TOTAL

Region 10

FOREST	TIMBER VOLUME, THOUSAND BOARD FEET	TOTAL INCOME, $1000	TIMBER MANAGEMENT COSTS, 100% ROADS	RECEIPTS/ COSTS RATIO	TIMBER MANAGEMENT COSTS, 50% ROADS	RECEIPTS/ COSTS RATIO	COST PER THOUSAND BOARD FEET, 100% ROADS	COST PER THOUSAND BOARD FEET, 50% ROADS	AVERAGE INCOME PER THOUSAND BOARD FEET
Tongass	2,481,993	59,837.1	109,079.3	0.55	64,106.8	0.93	43.95	25.83	24.11**
Chugach	37,087	1,781.3	5,799.0	0.31	4,670.4	0.38	156.36	125.93	48.03**
Regional Total	2,519,081	61,618.3	128,063.7	0.48	80,371.4	0.77	50.84	31.91	24.46**
NATIONAL TOTAL	53,640,659	3,630,646.4	2,162,128.9	1.68	1,587,434.1	2.29	40.31	29.59	67.68

* Receipts below costs by 100% Roads method.

** Receipts below costs by 50% and 100% Roads methods.

The charts show the quantities of timber in each region sold within each price category. Below that figure, in parentheses, is the percent of timber sold in that region within that price category: for instance, in Region 1, 25.5% of all the non-salvage timber sold by thousand board feet was sold below $10/mbf, while only 0.8% was sold above $300/mbf.

The cumulative category percent next to the simple category percent shows the percent of timber sold below the upper bound of that category. For instance, in Region 1, 43.7% of timber was sold below $40/mbf (the sum of 25.5% below $10/mbf, 5.2% sold between $10 and $20/mbf, and 13.0% sold between $20 and $40/mbf).

The charts show substantial amounts of non-salvage timber going for low prices: almost one billion board feet were sold below $20/mbf; about 35% of timber sold by cubic feet went for under $5/ccf. Although salvage sales do tend to receive lower prices than non-salvage sales (34.3% of salvage sales went for under $40/mbf, compared to 19.9% of non-salvage sales), they are by no means the only source of low-price sales. Considering only non-salvage sales, more timber was sold under $80/mbf than was sold above $200/mbf. Ninety-nine percent of timber sold above $300/mbf came from Washington, Oregon and California (Regions 5 and 6); if these regions are excluded from the analysis, only 9.5 million board feet were sold above $300/mbf in the remainder of the National Forest System, while 460 million board feet went for under $10/mbf. It appears that while the diminishing old growth of the Northwest commands high prices, much timber in the rest of the country (and even large amounts of timber in the Northwest) is sold very cheaply.

CATEGORIZATION OF TIMBER SALES (Excluding Salvage Sales), CALENDAR YEAR 1978, PRICE PER THOUSAND BOARD FEET.
Category percents are in parentheses below the total figures; cumulative category percents for the year are next to them.

Any sales or parts of sales priced by units other than thousand board feet were not included in this table.

*In Region 9, no sales were made using thousand board feet as the unit of measure.

REGION	PRICE PER THOUSAND BOARD FEET $ 0.00-9.99	10.00-19.99	20.00-39.99	40.00-79.99	80.00-149.99	150.00-199.99	200.00-299.99	300.00+	TOTAL
1	223,229 (25.5) 25.5	45,267 (5.2) 30.7	113,336 (13.0) 43.7	200,956 (23.0) 66.7	189,980 (21.7) 88.4	62,386 (7.1) 95.5	31,647 (3.6) 99.1	7,068 (0.8) 99.9	873,869
2	56,351 (21.5) 21.5	35,500 (13.5) 35.0	93,714 (35.7) 70.7	76,891 (29.3)100.0	57 (0.0)100.0				262,513
3	5,279 (1.6) 1.6	3,241 (1.0) 2.6	6,786 (2.1) 4.7	80,891 (24.8) 29.5	214,595 (65.7) 95.2	14,468 (4.4) 99.6		1,510 (0.5)100.1	326,770
4	41,538 (19.4) 19.4	42,105 (19.6) 39.0	35,515 (16.6) 55.6	53,768 (25.1) 80.7	38,074 (17.8) 98.5	964 (0.4) 98.9	1,813 (0.8) 99.7	660 (0.3)100.0	214,437
5	113,024 (8.5) 8.5	47,328 (3.5) 12.0	111,209 (8.3) 20.3	196,338 (14.7) 35.0	310,168 (23.2) 58.2	169,084 (12.7) 70.9	167,807 (12.6) 83.5	221,621 (16.6)100.1	1,336,579
6	97,201 (2.2) 2.2	107,345 (2.5) 4.7	261,477 (6.1) 10.8	632,288 (14.6) 25.4	936,223 (21.7) 47.1	,640 (12.2) 59.3	927,293 (21.5) 80.8	831,075 (19.2)100.0	4,320,542
8	15,149 (2.8) 2.8	5,686 (1.1) 3.9	20,068 (3.7) 7.6	59,596 (11.0) 18.6	244,284 (45.2) 63.8	149,345 (27.6) 91.4	46,352 (8.6)100.0	299 (0.1)100.1	540,779
9*									
10	118,260 (77.1) 77.1			11,140 (7.3) 84.4	17,770 (11.6) 96.0		6,310 (4.1)100.1		153,480
TOTAL	670,031 (8.3) 8.3	286,472 (3.6) 11.9	642,105 (8.0) 19.9	1,311,868 (16.3) 36.2	1,951,151 (24.3) 60.5	923,887 (11.5) 72.0	1,181,222 (14.7) 86.7	1,062,233 (13.2) 99.9	8,028,969

CATEGORIZATION OF TIMBER SALVAGE SALES MADE IN THOUSAND BOARD FEET, CALENDAR YEAR 1978.
Category percents are in parentheses below the total figures; cumulative category percents are next to them.

Any sales or parts of sales priced by units other than thousand board feet were not included in this table.

*In Region 9, no sales were made using thousand board feet as the unit of measure.

REGION	PRICE PER THOUSAND BOARD FEET $ 0.00-9.99	10.00-19.99	20.00-39.99	40.00-79.99	80.00-149.99	150.00-199.99	200.00-299.99	300.00+	TOTAL
1	25,917 (22.5) 22.5	3,498 (3.0) 25.5	26,835 (23.3) 48.8	22,701 (19.7) 68.5	31,821 (27.6) 96.1	2,974 (2.6) 98.7	1,567 (1.4)100.1	5 (0.0)100.1	115,318
2	7,476 (48.0) 48.0	5,188 (33.3) 81.3	249 (1.6) 82.9	--	2,670 (17.1)100.0	--	--	--	15,583
3	142 (1.5) 1.5	542 (5.7) 7.2	439 (4.6) 11.8	3,345 (35.2) 47.0	5,031 (53.0)100.0	--	--	--	9,499
4	24,900 (31.3) 31.3	15,105 (19.0) 50.3	28,612 (35.9) 86.2	7,730 (9.7) 95.9	2,336 (2.9) 98.8	993 (1.2)100.0	—	--	79,676
5	119,798 (27.2) 27.2	17,784 (4.0) 31.2	33,666 (7.6) 38.8	91,711 (20.8) 59.6	111,758 (25.3) 84.9	35,213 (8.0) 92.9	26,137 (5.9) 98.8	4,941 (1.1) 99.9	441,008
6	24,200 (5.7) 5.7	9,535 (2.2) 7.9	22,772 (5.3) 13.2	81,902 (19.1) 32.3	108,094 (25.3) 57.6	87,375 (20.4) 78.0	65,084 (15.2) 93.2	28,738 (6.7) 99.9	427,700
8	913 (8.0) 8.0	209 (1.8) 9.8	356 (3.1) 12.9	4,423 (38.9) 51.8	5,072 (44.6) 96.4	410 (3.6)100.0	--	--	11,383
9	--	--	--	--	--	--	--	--	--
10	1,550 (7.2) 7.2	3,420 (15.8) 23.0	11,670 (53.9) 76.9	--	4,260 (19.7) 96.6	740 (3.4)100.0	20 (0.1)100.1	--	21,660
TOTAL	204,896 (18.3) 18.3	55,281 (4.9) 23.2	124,599 (11.1) 34.3	211,812 (18.9) 53.2	271,042 (24.2) 77.4	127,705 (11.4) 88.8	92,808 (8.3) 97.1	33,684 (3.0)100.1	1,121,827

CATEGORIZATION OF ALL TIMBER SALES (Excluding Salvage Sales) MADE IN HUNDRED CUBIC FEET, CALENDAR YEAR 1978.
Category percents are in parentheses below the total figures; cumulative category percents are next to them.

Any sales or parts of sales priced by units other than hundred cubic feet were not included in this table.

REGION	PRICE PER HUNDRED CUBIC FEET $ 0.00-0.99	1.00-4.99	5.00-9.99	10.00-19.99	20.00-29.99	30.00+	TOTAL
1	200 (0.9) 0.9	19,810 (85.3) 86.2	5 (0.0) 86.2	1,349 (5.8) 92.0	693 (3.0) 95.0	1,167 (5.0)100.0	23,224
2	--	--	--	--	--	--	--
3	--	--	--	--	--	--	--
4	--	--	--	--	--	--	--
5	--	--	--	--	--	--	--
6	--	--	--	--	--	3,219 (100.0)100.0	3,219
8	26,051 (4.3) 4.3	105,075 (17.4) 21.7	142,687 (23.7) 45.4	247,293 (41.0) 86.4	59,015 (9.8) 96.2	22,553 (3.7) 99.9	602,674
9	136,379 (16.8) 16.8	212,151 (26.2) 43.0	148,620 (18.4) 61.4	133,523 (16.5) 77.9	78,023 (9.6) 87.5	100,825 (12.5)100.0	809,521
10	--	--	--	--	--	--	--
TOTAL	162,630 (11.3) 11.3	337,036 (23.4) 34.7	291,312 (20.2) 54.9	382,165 (26.6) 81.5	137,731 (9.6) 91.1	127,764 (8.9)100.0	1,438,638

CATEGORIZATION OF TIMBER SALVAGE SALES MADE IN HUNDRED CUBIC FEET, CALENDAR YEAR 1978.
Category percents are in parentheses below the total figures; cumulative category percents are next to them.

Any sales or parts of sales priced by units other than hundred cubic feet were not included in th s table.

REGION	PRICE PER HUNDRED CUBIC FEET $ 0.00-0.99	1.00-4.99	5.00-9.99	10.00-19.99	20.00-29.99	30.00+	TOTAL
1	676 (3.4) 3.4	15,639 (77.9) 81.3	--	72 (0.4) 81.7	437 (2.2) 83.9	3,261 (16.2)100.1	20,085
2	--	--	--	--	--	--	--
3	--	--	--	--	--	--	--
4	--	--	--	--	--	--	--
5	--	--	--	--	--	--	--
6	15,130 (28.7) 28.7	37,500 (71.3)100.0	--	--	--	--	52,630
8	2,702 (18.9) 18.9	4,789 (33.5) 52.4	4,688 (32.8) 85.2	830 (5.8) 91.0	1,204 (8.4) 99.4	80 (0.6)100.0	14,293
9	6,409 (26.8) 26.8	4,787 (20.0) 46.8	5,290 (22.1) 68.9	4,979 (20.8) 89.7	1,246 (5.2) 94.9	1,242 (5.2)100.1	23,953
10	--	--	--	--	--	--	--
TOTAL	24,917 (22.5) 22.5	62,715 (56.5) 79.0	9,978 (9.0) 88.0	5,881 (5.3) 93.3	2,887 (2.6) 95.9	4,583 (4.1)100.0	110,961

CATEGORIZATION OF ALL SALES MADE IN CORD AND TON, CALENDAR YEAR 1978.

Any sales or parts of sales priced by units other than cords or tons were not included in this table.

REGION	PRICE PER CORD OR TON $ 0.00-0.99	1.00-4.99	5.00-9.99	10.00-19.99	20.00-39.99	40.00-79.99	80.00-150.00	TOTAL
1	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
2	48,313 Cords	--	--	--	--	--	--	48,313 Cords
	--	--	--	--	--	--	--	--
3	--	10,000 Cords	21,000 Cords	--	--	--	--	31,000 Cords
	--	400,000 Tons	--	--	--	--	--	400,000 Tons
4	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
5	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
6	--	--	--	--	443 Cords	310 Cords	204 Cords	957 Cords
	--	--	--	--	--	--	--	--
8	--	--	--	--	--	--	--	--
	--	3,000 Tons	2,400 Tons	3,500 Tons	--	--	--	8,900 Tons
9	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
10	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
TOTAL	48,313 Cords	10,000 Cords	21,000 Cords	--	443 Cords	310 Cords	204 Cords	80,270 Cords
	--	403,000 Tons	2,400 Tons	3,500 Tons	--	--	--	408,900 Tons

APPENDIX 3: Comparison of Average Cost of Timber in 1978 to Prices Received for Timber in 1978, by Region

The Costs and Receipts Data tables in Appendix 1 give information on the overall profitability of the national forests. The Categorization tables in Appendix 2 give information on the prices received for timber. The following table combines information from these two sets of tables to calculate, by region, a rough estimate of the quantities of timber sold below cost.

The Costs and Receipts Data tables provide an average cost per thousand board feet for the timber sales program. In order to recover the costs, the price received per thousand board feet must be higher than the cost. Prices received come from the Categorization tables. To estimate the quantity of timber sold below cost, the cost per thousand board feet was compared to the sales prices: any timber sold below that cost figure probably did not recover costs.

Some adjustments in the figures used had to be made to produce a fair comparison. According to a staff member of the Fiscal and Accounting Management Division of the Forest Service, the sale price includes K-V costs but does not include the Timber Salvage Fund or Timber Purchaser Roads Credit. On the other hand, the average cost figures in Appendix 1 do include the latter funds. Therefore, the Average Cost per Thousand Board Feet, 1978 columns were adjusted from Appendix 1 to include all the costs described in Part V of the study except for Timber Salvage Fund and Timber Purchaser Roads Credit costs.

The Percent of Non-Salvage Board Feet Timber Sold in 1978 Below Average Cost comes from comparing the average cost figure to the Categorization charts, and totalling the amount of timber sold below that cost. To be conservative, the first category completely below the cost figure was used to estimate the percent of timber below cost. For instance, the average cost for Region 1, using the 100% Costs method, is $55.64 per

thousand board feet. The next lowest price category was $20 to $39.99; a total of 43.7% of timber in Region 1 was sold in that category or a lower one. Since there was probably additional timber sold between $40 and $55.64 per thousand board feet, this figure is likely too low. This analysis does not include salvage timber.

Because costs were calculated two different ways (first, using 50% of roads costs; second, using 100% of roads costs), this comparison was done using both cost figures. The percent of timber sold below cost changes only in one region because of the different cost figures.

APPENDIX 4: Roadless Areas and Roadless Commercial Forest Land in Administrative Units with Records of Sales Below Costs

In 1979, the Forest Service completed its second Roadless Area Review and Evaluation (RARE II), a process to determine the uses which the remaining areas in the National Forest System should be assigned. The Forest Service determined in RARE II which roadless areas to recommend for Congressional designation as wilderness, which to assign to non-wilderness uses such as logging, and which to study further prior to a final decision. Nearly three thousand roadless areas, comprising some 62 million acres, 26.8 million of which are commercial forest land, were examined. Approximately 60% of these areas were designated non-wilderness in RARE II, less than a quarter - including only 6.0 million acres of commercial forest land - were recommended for wilderness designation, and the remainder were slated for further study.

Appendix 4 shows the number and commercial forest land acreage of roadless areas generally and of roadless areas designated non-wilderness in administrative units of the National Forest System with receipts:costs ratios below one. The national forest units identified in the charts are those which the analysis using 50% of road costs showed to have receipts:costs ratio less than one for the five-year period as a whole. The column following the unit name gives the five-year receipts:costs ratio under the 50% roads method for that unit. This information comes from Appendix 1. The next four columns present, respectively, the total number of RARE II areas in the unit, the commercial forest land acreage in those areas, the number of RARE II areas designated non-wilderness in the unit, and the commercial forest land acreage of those areas. This information comes from the Forest Service's RARE II documents.

The charts show that approximately 17.8 million acres of commercial forest land lie within the 2,108 roadless areas in those units with receipts:costs ratios less than one under the 50% roads method. This represents 66% of all commercial

forest land within the RARE II areas. There are 1,391 roadless areas designated non-wilderness in the units with receipts: costs ratios below one. Approximately 11.5 million acres of commercial forest land, or 43% of the total for RARE II areas, is contained in these non-wilderness areas.

COMPARISON OF AVERAGE COST OF TIMBER IN 1978 TO PRICES RECEIVED FOR TIMBER IN 1978, BY REGION

REGION	AVERAGE COST PER 1000 BOARD FEET, 1978, 100% ROADS	PERCENT OF NON-SALVAGE BOARD FEET TIMBER SOLD IN 1978 BELOW AVERAGE COST, 100% ROADS	AVERAGE COST PER 1000 BOARD FEET, 1978, 50% ROADS	PERCENT OF NON-SALVAGE BOARD FEET TIMBER SOLD IN 1978 BELOW AVERAGE COST, 50% ROADS
1	$ 55.64	At least 43.7%	$ 44.29	At least 43.7%
2	68.98	At least 70.7%	57.71	At least 70.7%
3	47.24	At least 4.7%	41.02	At least 4.7%
4	65.09	At least 55.6%	50.38	At least 55.6%
5	33.69	At least 12.0%	26.97	At least 12.0%
6	27.43	At least 4.7%	22.61	At least 4.7%
8	43.88	At least 7.6%	38.39	At least 3.9%
9*	44.30	At least 16.8%*	39.72	At least 16.8%*
10	30.07	At least 77.1%	27.10	At least 77.1%

*Region 9 sold no timber measured in board feet. The percent-below-cost figures are approximations based on converting the price of non-salvage timber per hundred cubic feet to a price per thousand board feet, using a conversion figure of 4 cubic feet to one board foot (provided by Jack Bennett, Timber Management Division, U.S. Forest Service, Washington, D.C.).

COMMERCIAL FOREST LAND IN RARE II AREAS OF FORESTS NOT RECOVERING COSTS BY 50% ROADS METHOD

Forest	Average Receipts/ Costs Ratio, 50% Roads	Number of Roadless Areas Outside Existing Wilderness	Acres of Commercial Forest Land in Roadless Areas	Number of Roadless Areas Recommended for Non-Wilderness	Acres of Commercial Forest Land in Roadless Areas Recommended for Non-Wilderness
REGION 1					
Beaverhead	0.47	16	356,627	8	174,446
Bitterroot	0.65	14	467,265	4	203,364
Custer	0.09	10	42,173	8	49,792
Deerlodge	0.85	19	316,421	13	208,683
Gallatin	0.35	17	185,854	9	93,275
Helena	0.25	21	315,073	17	255,224
Lewis & Clark	0.38	35	654,268	26	456,321
REGION 2					
Bighorn-Shoshone	0.30	62	826,392	52	777,881
Black Hills	0.71	4	24,111	3	19,176
Grand Mesa-Uncompahgre-Gunnison	0.35	58	667,856	44	545,696
Medicine Bow	0.51	33	305,040	27	220,065
Nebraska	0.03	5	3,630	4	1,830
Rio Grande	0.51	27	519,900	3	364,582
Arapahoe-Roosevelt	0.46	54	428,043	42	233,022
Routt	0.45	23	386,405	18	297,373
Pike-San Isabel	0.23	57	633,455	47	342,688
San Juan	0.71	39	625,565	28	479,667
White River	0.23	49	646,491	46	550,126
REGION 3					
Cibola	0.60	14	67,480	9	17,160
Coronado	0.30	28	162,086	11	100,870

COMMERCIAL FOREST LAND IN RARE II AREAS OF FORESTS NOT RECOVERING COSTS BY 50% ROADS METHOD

Forest	Average Receipts/ Costs Ratio, 50% Roads	Number of Roadless Areas Outside Existing Wilderness	Acres of Commercial Forest Land in Roadless Areas	Number of Roadless Areas Recommended for Non-Wilderness	Acres of Commercial Forest Land in Roadless Areas Recommended for Non-Wilderness
Gila	0.59	33	239,708	26	196,469
Lincoln	0.61	15	60,938	9	9,942
Prescott	0.13	16	16,640	12	4,080
Tonto	0.41	16	11,160	10	8,440
REGION 4					
Ashley	0.35	20	219,442	15	161,727
Bridger-Teton	0.67	23	712,424	17	462,776
Caribou	0.24	18	239,410	16	228,360
Challis	0.41	26	364,579	16	183,265
Dixie	0.44	10	75,995	5	41,964
Fishlake	0.75	25	299,608	24	275,328
Humboldt	0.61	45	27,700	38	14,800
Manti-LaSal	0.47	32	197,588	31	188,177
Salmon	0.92	23	402,025	19	293,082
Sawtooth	0.26	17	330,445	12	77,309
Targhee	0.65	18	411,307	11	222,201
Uinta	0.95	29	125,110	26	113,700
Wasatch-Cache	0.58	21	233,831	15	173,472
REGION 5					
Angeles	0.06	12	34,840	7	25,240
Cleveland	0.10	6	430	2	0
Inyo	0.97	45	68,899	10	45,552
Los Padres	0.08	39	31,074	12	3,670
San Bernardino	0.86	30	25,620	15	6,160

COMMERCIAL FOREST LAND IN RARE II AREAS OF FORESTS NOT RECOVERING COSTS BY 50% ROADS METHOD

Forest	Average Receipts/ Costs Ratio, 50% Roads	Number of Roadless Areas Outside Existing Wilderness	Acres of Commercial Forest Land in Roadless Areas	Number of Roadless Areas Recommended for Non-Wilderness	Acres of Commercial Forest Land in Roadless Areas Recommended for Non-Wilderness
REGION 8					
NFS in Alabama	0.95	17	64,627	5	13,191
Daniel Boone	0.26	3	17,523	1	3,949
Chattahoochee-Oconee	0.91	26	208,024	15	80,945
Cherokee	0.53	21	126,898	14	91,275
George Washington	0.24	15	154,206	7	99,604
Ozark-St. Francis	0.64	13	118,582	9	91,013
NFS in North Carolina	0.47	38	207,290	18	123,788
Jefferson	0.15	16	78,051	6	28,156
Caribbean	0.01	1	200	0	0
REGION 9					
Chequamegon	0.35	11	46,763	7	30,203
Chippewa	0.39	3	64	3	64
Huron-Manistee	0.33	2	6,304	1	3,485
NFS in Missouri	0.52	10	63,640	4	16,077
Nicolet	0.66	10	33,261	7	16,688
Ottawa	0.51	4	28,017	1	6,213
Shawnee	0.22	9	36,839	3	13,030
Superior	0.23	8	63,025	8	63,025
Hiawatha	0.40	8	30,949	4	20,304
Wayne-Hoosier	0.47	3	16,412	1	6,727
Green Mountain	0.41	6	50,714	6	50,714
Monongahela	0.18	24	205,701	19	139,981
White Mountain	0.76	13	120,083	3	10,633

APPENDIX 5: National Forests and States Within Forest Service Regions

REGION	STATES	NATIONAL FORESTS
1--Northern	Idaho	Clearwater
		Panhandle
		Nezperce
	Montana	Beaverhead
		Bitterrroot
		Custer
		Deerlodge
		Flathead
		Gallatin
		Helena
		Kootenai
		Lewis & Clark
		Lolo
	*Washington	*Colville
2--Rocky Mountain	Colorado	Arapahoe-Roosevelt
		Grand Mesa- Uncompahgre-Gunnison
		Pike-San Isabel
		Rio Grande
		Routt
		San Juan
		White River
	Nebraska	Nebraska
	South Dakota	Black Hills
	Wyoming	Bighorn-Shoshone
		Medicine Bow
3--Southwestern	Arizona	Apache-Sitgreaves
		Coconino
		Coronado
		Kaibab
		Prescott
		Tonto
	New Mexico	Carson
		Cibola
		Gila
		Lincoln
		Santa Fe
4--Intermountain	Idaho	Boise
		Caribou
		Challis
		Payette
		Salmon
		Sawtooth
		Targhee
	Nevada	Humboldt
		Toiyabe
	Utah	Ashley
		Dixie
		Fishlake
		Manti-LaSal
		Uinita
		Wasatch-Cache
	Wyoming	Bridger-Teton
5--Pacific Southwest	California	Angeles
		Cleveland
		Eldorado
		Inyo
		Klamath
		Lassen
		Los Padres
		Mendocino
		Modoc

REGION	STATES	NATIONAL FORESTS
5--Pacific Southwest, continued		Plumas
		San Bernardino
		Sequoia
		Shasta-Trinity
		Sierra
		Six Rivers
		Stanislaus
		Tahoe
6--Pacific Northwest	Oregon	Deschutes
		Fremont
		Malheur
		Mt. Hood
		Ochoco
		Rogue River
		Siskiyou
		Siuslaw
		Umatilla
		Umpqua
		Wallowa-Whitman
		Willamette
		Winema
	Washington	Gifford Pinchot
		Mt. Baker
		Okanogan
		Olympic
		Snoqualmie
		Wenatchee
		*Colville
8--Southern	Alabama	NFS in Alabama
	Arkansas	Ouachita
		Ozark-St. Francis
	Florida	NFS in Florida
	Georgia	Chattahoochee-Oconee
	Kentucky	Daniel Boone
	Louisiana	Kisatchie
	Mississippi	NFS in Mississippi
	North Carolina	NFS in North Carolina
	South Carolina	Francis Marion-Sumter
	Tennessee	Cherokee
	Texas	NFS in Texas
	Virginia	George Washington
		Jefferson
9--Eastern	Illinois	Shawnee
	Indiana-Ohio	Wayne-Hoosier
	Michigan	Hiawatha
		Huron-Manistee
		Ottawa
	Minnesota	Chippewa
		Superior
	Missouri	NFS in Missouri
	New Hampshire	White Mountain
	Pennsylvania	Allegheny
	Vermont	Green Mountain
	West Virginia	Monongahela
	Wisconsin	Chequamegon
		Chippewa
10--Alaska	Alaska	Chugach
		Tongass

*In 1974, Colville National Forest was in Region 1; after 1974, Colville is in Region 6.

The Natural Resources Defense Council is a nonprofit organization dedicated to the wise management of natural resources and enhancement of environmental quality. NRDC has 45,000 contributing members in the United States and in more than 20 other countries, and offices in New York, Washington, and San Francisco. NRDC has a staff of over 35 lawyers, scientists, and other professionals. Through its Forestry Project, NRDC is working for improved management of public woodlands in the 154 National Forests across the nation. NRDC has been particularly concerned with improving timber harvest methods and reducing timber sales in areas of the National Forests that are marginal from an economic standpoint. NRDC was instrumental in the litigation that led to passage of the National Forest Management Act by Congress in 1976, landmark legislation for improved management of the National Forests. NRDC is deeply involved in wilderness management issues on Federal lands.

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COMMERCIAL FOREST LAND IN RARE II AREAS OF FORESTS NOT RECOVERING COSTS BY 50% ROADS METHOD

Forest	Average Receipts/ Costs Ratio, 50% Roads	Number of Roadless Areas Outside Existing Wilderness	Acres of Commercial Forest Land in Roadless Areas	Number of Roadless Areas Recommended for Non-Wilderness	Acres of Commercial Forest Land in Roadless Areas Recommended for Non-Wilderness
REGION 10					
Tongass	0.93	719	4,054,610	480	2,445,773
Chugach	0.38	24	382,228	2	10,268
TOTAL		2,108	17,813,279	1,391	11,543,874

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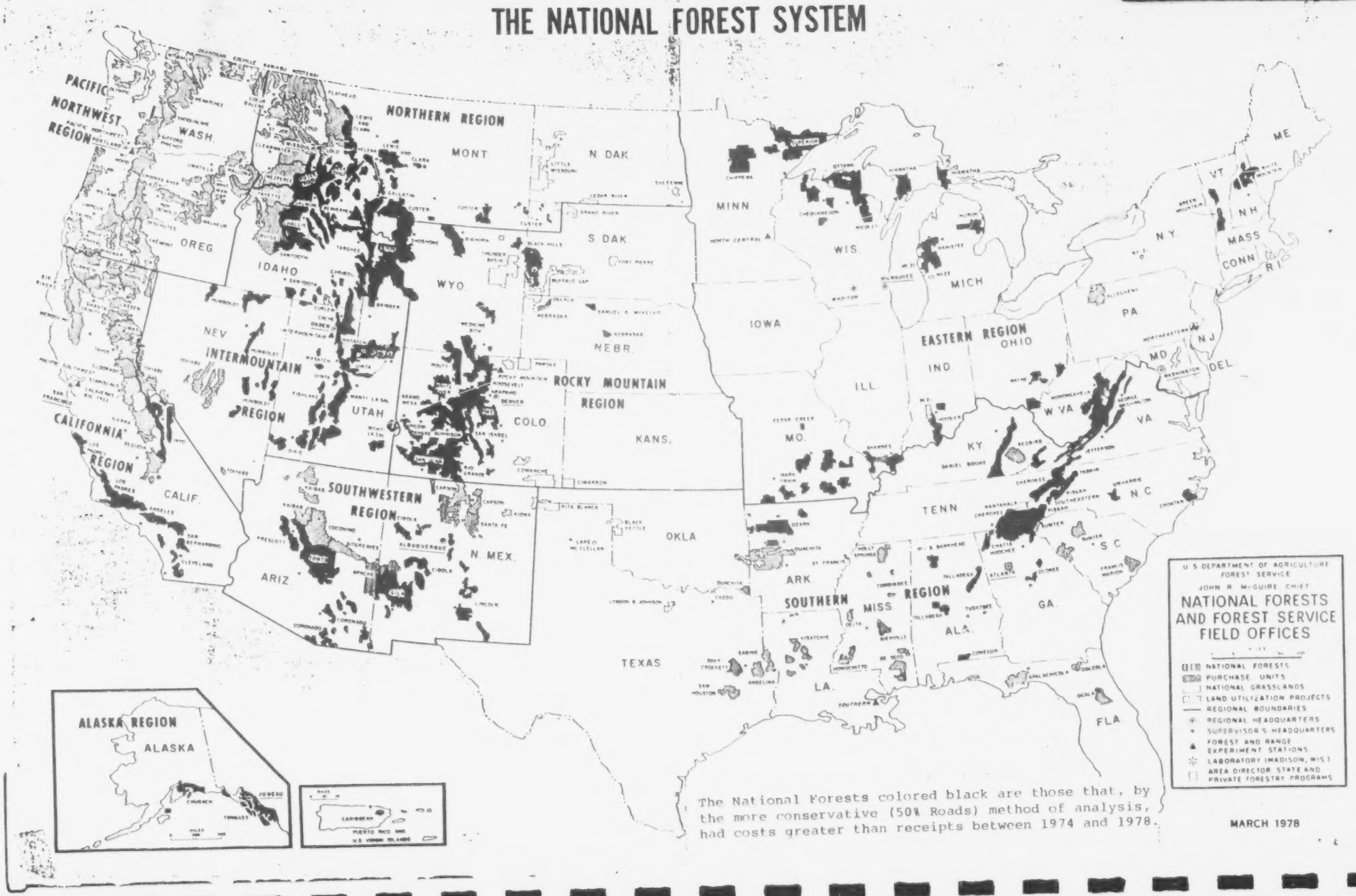
THE NATIONAL FOREST SYSTEM



U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
JOHN R. McGUIRE, CHIEF

NATIONAL FORESTS AND FOREST SERVICE FIELD OFFICES

- NATIONAL FORESTS
- PURCHASE UNITS
- NATIONAL GRASSLANDS
- LAND UTILIZATION PROJECTS
- REGIONAL BOUNDARIES
- REGIONAL HEADQUARTERS
- SUPERVISOR'S HEADQUARTERS
- FOREST AND RANGE EXPERIMENT STATIONS
- LABORATORY (MADISON, WIS.)
- AREA DIRECTOR, STATE AND PRIVATE FORESTRY PROGRAMS

The National Forests colored black are those that, by the more conservative (50% Roads) method of analysis, had costs greater than receipts between 1974 and 1978.

MARCH 1978